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FARM AND FIRESIDE

Vol. XXXIII. No. 1 | Springfield, Ohio, October 10, 1909 | Terms { 1 Year, 24 Numbers, 35 Cents / 4 Years, 96 Numbers, $1.00 }

Important Notice

How We Are Going To Spend $60,000 For Farm and Fireside Readers

FOR thirty-three years FARM AND FIRESIDE has stood as the standard farm and home paper in America. All these years it has championed the best interests of the farmer and his family. For a third of a century FARM AND FIRESIDE has grown and grown until now over two million of the most intelligent and progressive men and women in America read its pages twice each month.

To-day FARM AND FIRESIDE is the best farm paper in the world at the price. Big and valuable and interesting as FARM AND FIRESIDE now is, we want to give you a better paper. There is not now room enough in FARM AND FIRESIDE for all the farm facts and agricultural news that we need to print; there is not now room for all the household information that we want to give you; there is not now room for as many stories and romances as we want you to enjoy.

THE time has come when our FARM AND FIRESIDE readers want the best paper that can be produced at any price—and you **are going to get it.** Hereafter FARM AND FIRESIDE will be the best farm paper at any price.

The new and greater FARM AND FIRESIDE will commence with the November 10th issue—one month from to-day. It will be bigger and handsomer, printed on better paper; it will be more helpful, more interesting and more entertaining. FARM AND FIRESIDE will cost more money to make; its price to readers will increase—but FARM AND FIRESIDE'S friends can subscribe now at the old prices and get all the new features without cost.

WE are going to spend $60,000 right off in making FARM AND FIRESIDE the best farm paper. That's a big contract. It takes a great many thousands of subscriptions for FARM AND FIRESIDE to equal $60,000—and this $60,000 which we are going to spend on FARM AND FIRESIDE is entirely in addition to everything we are now spending. We are going to spend this money to give you the best farm paper in the world.

TO give you the new and greater FARM AND FIRESIDE, it is going to cost us $60,000 additional in editorial matter, in handsome illustrations, in better paper and ink, and in an enlarged mechanical equipment.

This is the way we are going to spend this $60,000:

1st. In addition to our Managing Editor and staff of associate editors, we have secured as Editor-in-Chief, Mr. Herbert Quick, of Sioux City, Iowa.

MR. QUICK, big in body, big in mind, big in soul, is a farmer himself and has lived among farmers all his life. He has been, in addition, a writer of national reputation, a successful business man, and Mayor of Sioux City. We were mighty lucky to secure his services.

2nd. We are going to spend more money for first-class, accurate, authoritative, strictly agricultural articles and for stories, than has ever been spent before by a farm paper—and for illustrations and pictures in particular. Mr. Quick, with his vast acquaintance with men who have done things, will travel from one end of this country to the other, seeking out just those things which will be most helpful and interesting to farmers and farmer's families.

3rd. Every issue of FARM AND FIRESIDE will have a beautiful cover, printed in full color. To enable us to print these beautiful covers, we are putting a $10,000 addition to our gigantic FARM AND FIRESIDE printing press. This really represents a much larger outlay than would appear at first, as it means costly designs and expensive half-tone plates for the covers of each issue, in addition to the $10,000 addition to the press. We would not for one moment sacrifice farm sense and farm reliability to make our paper beautiful. FARM AND FIRESIDE will be more practical than ever before. But we believe that you will greatly appreciate the beautiful covers that will adorn FARM AND FIRESIDE in the future issues.

4th. The new and greater FARM AND FIRESIDE will be printed **on as fine a book paper as any magazine or periodical in the world.** This means that all the illustrations and pictures will be printed more clearly and more beautifully than has ever been done before.

ALL this starts with FARM AND FIRESIDE'S big November 10th issue.

Price Going Up

Commencing with the November 10th issue, FARM AND FIRESIDE will become the biggest, most practical and handsomest farm paper published. The subscription price of the new and greater FARM AND FIRESIDE will be 50 cents a year.

Subscribe Now at the Old Prices

We want every reader of FARM AND FIRESIDE to have the opportunity to subscribe for FARM AND FIRESIDE at the present low prices, and secure all the new features of the paper without expense. You may subscribe now, before November 10th, at the following prices:

One year subscription	-	**35 cents**
Two year subscription	-	**50 cents**
Four year subscription	-	**$1.00**

Remember that FARM AND FIRESIDE comes twice a month.

If your present subscription for FARM AND FIRESIDE has not expired, you can now subscribe **in advance** at the old prices. Your advance subscription will be entered on our books to begin when your present subscription expires. Send your subscription to

FARM AND FIRESIDE
Springfield, Ohio

Valuable Information on Page 17

Concrete Corn-Crib and Tool-Shed

Farm Buildings Are Now Made Rat-Proof and Fire-Proof

The waste of grain every year from the activities of rats and mice is enormous; add to this the loss caused by storing grain in a damp building and we have a sum that on the average farm would soon pay the entire cost of a building that would absolutely exclude all this yearly loss, and also save labor in handling the crop.

The building as illustrated in Fig. 1, is built from concrete blocks made in a special machine that molds in each one a number of cores or ventilating spaces, to act upon the same principle as wood strips or netting on the ordinary corn-crib. In Fig. 2 is shown the completed blocks which are strong, as well as light, requiring less than a cubic foot of concrete to make one. This wall is made rat-and-mouse proof by a concrete ledge around the entire building as shown in Fig. 1, thus preventing the vermin from entering the building on any side. It has the double advantage of fire-proof walls and damp-proof floor.

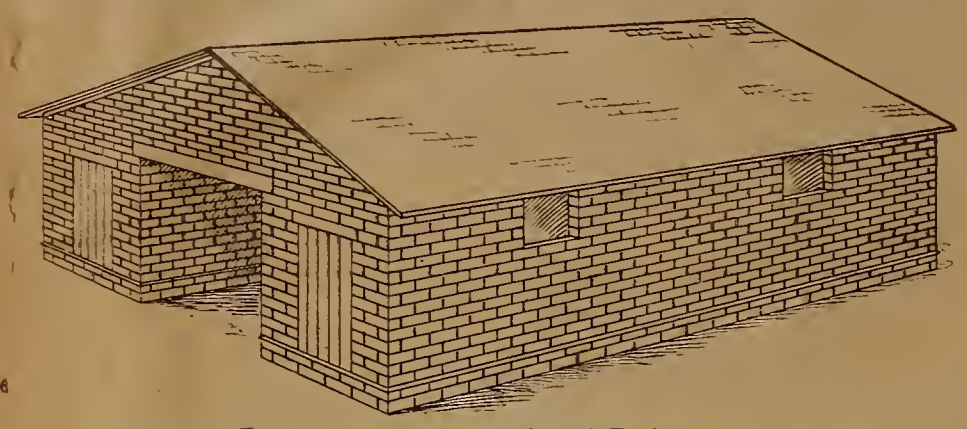


Fig. 1—Concrete Corn-Crib and Tool-Shed

The building, as shown in Fig. 3, is twenty-eight by thirty-four feet giving two cribs nine feet wide, outside measure, and an alleyway of ten feet which makes an ideal place for the storing of tools. This building, with a net capacity of two thousand seven hundred and eight bushels of grain, will cost but little more than a good wood building of the same size, as can be shown by the detailed estimate below. In this you have a building that is everlasting and one that should be the pride of the farm.

Building the Block Machine

For this two-inch lumber should be used so that it may be solidly braced and less liable to warp. For the two ends of the machine cut two pieces eight by ten inches from a two-inch plank. The eight-inch width is the width of the wall and the blocks are ten inches in height. On the inside of these end pieces nail two three-cornered or bevel strips, as shown in Fig. 2, which make a lock for mortar at the end of the block.

For the sides cut four pieces two by two inches and twenty-eight inches long; now cut fourteen pieces two by two inches and six inches long and four pieces of two by four inch lumber six inches long.

Now secure eight pieces six inches wide, twelve inches long and three fourths of an inch thick, of a good hard wood and very smoothly dressed down so they will slip easily in the mold. In one end of each piece bore a hole to serve as a handhold in drawing out the piece, as shown in Fig. 2.

To assemble the sides place one two by four by six piece at one end between two two by two by twenty-eight inch strips; now place one of your three fourths-inch boards on edge beside this and then a two by two by six inch piece and so on finishing the end with a two by four by six inch piece. This places the openings in the block two inches apart. Now place the two ends so the sides lap over the width of same, as shown in Fig. 2, hinge together with strap hinges at three corners and fasten the fourth corner with two hooks and eyelets. This allows the machine to be folded back from the completed block easily and without danger of breaking.

Before you use the machine paint it with three coats of shellac, allowing each one to dry well and thus making the wood impervious to moisture, so it will be less liable to warp in using.

This machine makes the blocks twenty-four inches long, ten inches high and eight inches thick and can be operated as rapidly as the average core block machine.

A machine is built the same as above, but with the sides made from two by ten [illegible] twenty-eight inch planks to mold the foundation blocks, above ground level, where it is desired to have the blocks solid for greater strength. The building as estimated calls for a twelve-inch thick foundation; this may be accomplished by making the ends ten by twelve inches for the foundation-block machine.

The machine is operated by setting the open side upon a plank or pallet to serve as a bottom to the machine, place your three fourths-inch cores in place and fill with concrete tamping it in tightly, which may be done by using a two by four piece as a tamper. When filled and top levelled draw out the three fourths-inch cores, carefully, then unhook the one corner and fold the machine back from the block, which is left upon the pallet for forty-eight hours to dry before handling. The machine is set upon another plank or pallet and the operation repeated so that an ordinary laborer should be able to make at least one hundred blocks in a day of ten hours.

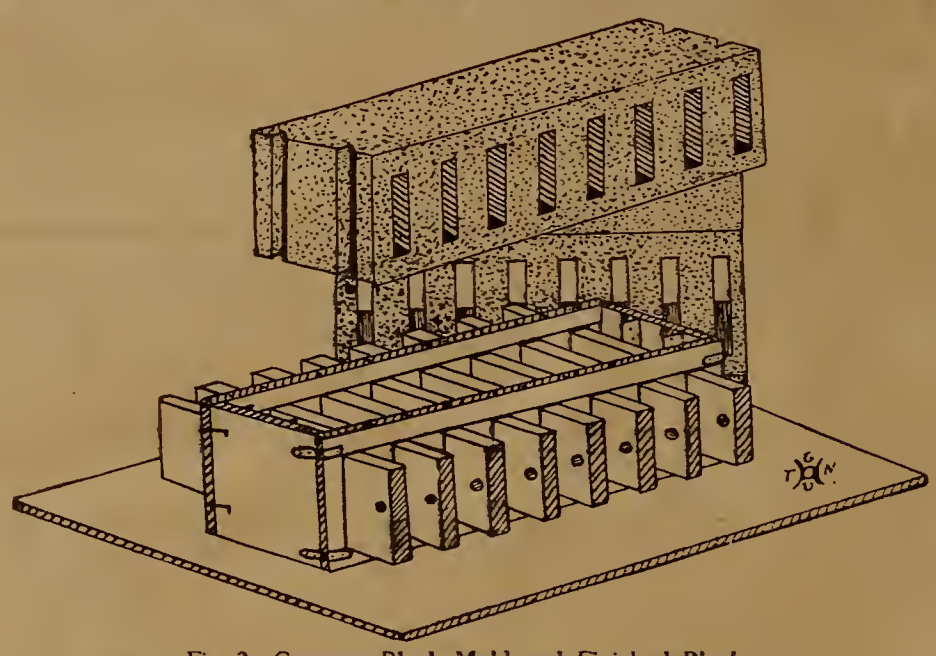


Fig. 2—Concrete Block Mold and Finished Blocks

The Concrete

The specifications call for a mixture of 1:2:4 for the blocks, foundation blocks, ledge and beams as well as floors; this may be made one part of cement to six parts of pit-run gravel where there is plenty of gravel in the sand that averages one half inch in size; this must be free from clay or dirt and the sand, mixed with the gravel, fine and sharp. Mix with the cement dry and have thoroughly mixed, then add just enough water to thoroughly wet the mixture, but not enough to make it soaking wet, as a very wet mix will make trouble in block work though it is ideal for filling a trench or wall forms.

The blocks should be molded and allowed to dry for at least twenty-eight days before placing in the walls as blocks that are laid too "green" are very apt to cause trouble and may be the cause of a failure; with good drying weather the blocks at twenty-eight days are safe and it is much better to be sure than sorry.

Erecting the Building

Your trench is first dug for walls to a depth of twenty-two inches and is filled with small stone and concrete to the ground level. For this you may use concrete made of cement one part to eight parts of pit-run gravel and mixed very wet. Fill in a course of small stones and a course of concrete, thus embedding the stones in the concrete and making a strong foundation.

When the foundation is strong enough lay the two courses of foundation blocks as illustrated in Fig. 1. Now for the projecting ledge place a board on the inside of the wall so as to project above the foundation blocks six inches; this may be held in place by stakes. For the outside of the form nail a four-inch aud a five-inch board together at right angles so as to make the space inside four inches each way. Place these around the outside of the foundation, holding in proper position with stakes, so as to mold the ledge around the walls with a four-inch projection, as shown in "Detail of Foundation" in Fig. 4. The concrete is placed in this form to a depth of six inches on the inside and with the outside slightly beveled as illustrated; this is made so that an eight-inch space is left on top for the blocks of the wall above the ledge. This ledge may be molded in a box form and then laid as the blocks are, but can as well be molded solid upon the wall.

The walls are now erected with a space left at each end of the crib, or as desired, for the doorways, laying nine courses of blocks and then molding the cross-beams above the doors. The cross-beams are made eight by ten inches, the same as the blocks, and seven feet long; thus with doors three feet six inches wide, the beams will rest upon the side walls tweuty-one inches on each side. They are strongly reinforced with iron as illustrated in Fig. 4.

To make a beam a ten-inch board is placed at the top of the doorway and braced from below, then, a ten-inch board is erected on each side, thus forming a mold for the beam. This mold is slightly longer than the beam is to be made. These boards are braced from below so as to hold them securely in position and a two-inch course of concrete is laid in the bottom and upon this is laid two one half-inch iron rods seven feet long. Two half-inch rods, eight feet three inches long, are now bent in the center so they will pass under these rods laid horizontally and reach to the corner of the beam at the ends, as shown by the dotted lines in Fig. 4, "Detail of Cross-Beam." These rods are now connected by eight stirrup rods. These are bent six inches in width, across the bottom, and for doorway beams seven inches high, as shown in "Detail of Stirrup Rod": the ends are bent out about three fourths of an inch. The stirrup rods are placed under the half-inch horizontal rods and erected perpendicularly. They may be placed and held in position by using small wire and tying them where they meet the half-inch rods so the concrete can be placed without disarranging them.

After the reinforcement is in place fill with concrete to the top of the form, which thus makes the beam the same height as a course of blocks, and this allows the blocks to be laid over the beam.

A course of blocks is laid over the cross-beams above the doors, and in the next three courses of blocks openings are left two feet wide and thirty inches high for the windows. In event these are desired on the inside it will be possible to place them higher and thus the cribs may be more easily filled from the driveway.

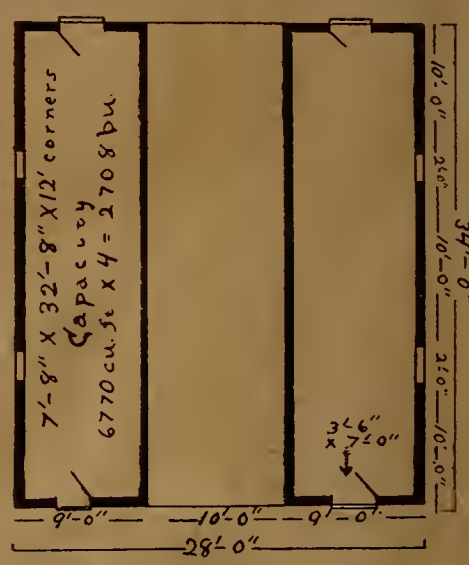


Fig. 3—Floor Plan of Crib and Shed

Three courses of blocks are laid above the cross-beams over the doors and then two blocks are laid eighteen inches from the corner next to the driveway; a two-by-ten-inch plank ten feet long is now placed across the driveway even with the wall and braced from below; this is to form the bottom of the mold for the cross-beam. Two ten-inch planks fourteen feet long are now erected on each side of the space for the beam; these are braced from below and an inch-and-one-half course of concrete is laid in the bottom of this form; on this are laid the two horizontal half-inch iron rods which are thirteen feet long; the two slanting rods are bent and placed in position as for the door beams. The slanting rods are fourteen feet six inches long. Ten stirrup rods are now placed in position as for the door beam. These are six inches at the bottom and bent in a U shape nineteen inches high, the ends bent outward as illustrated. These are held in position, as illustrated by dotted lines in the diagram of the cross-beams, and the concrete tamped around them. The ends of form are made by the two blocks previously laid which allows this cross-beam to rest upon side walls eighteen inches on each side.

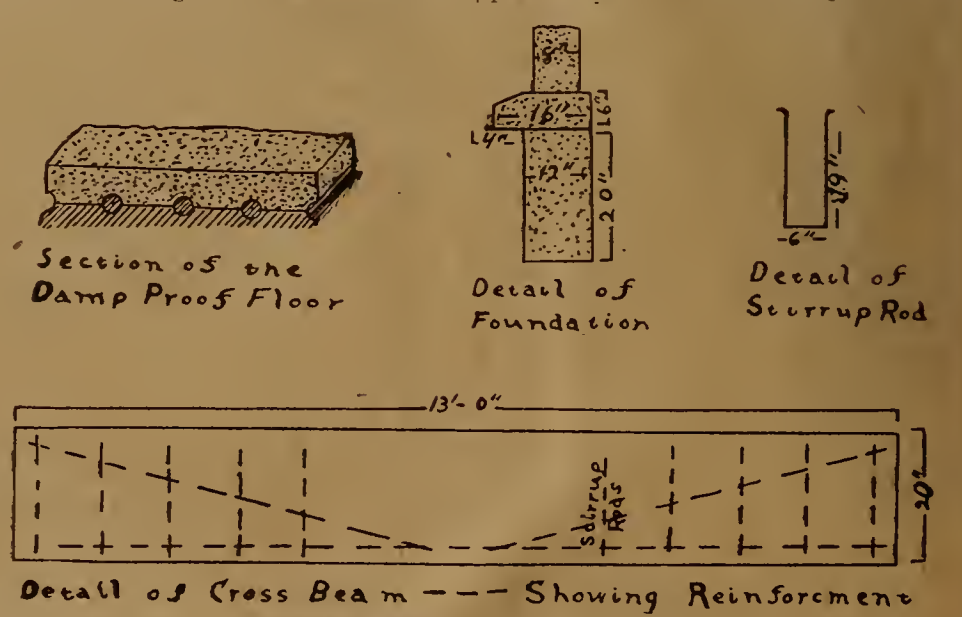


Fig. 4—Detail of Construction Work

Stirrup rods for all beams should be not less than five sixteenths of an inch in diameter and must be placed so as to be perpendicular in the concrete beam, connecting the four horizontal rods.

The blocks are now laid for the gables which have a seven-foot raise in the cen-

[CONCLUDED ON PAGE 5]

Some Experiments Have Been Tried

Practical Farmers Are Learning by Doing

Success With Sweet Clover

I AM so well pleased with experimenting with sweet clover as a soil restorer and a forage for live stock that I will endeavor to give a few points on its management.

Sweet clover belongs to the family of leguminous plants. The same bacteria live on its roots that live on the roots of the alfalfa plant. Some people will say alfalfa is so much better than sweet clover why not plant it? How do they know if they have never tried it?

I first used sweet clover as an inoculator for alfalfa. The bacteria developed so much more rapidly in the soil sown to sweet clover than in that sown to alfalfa. The plant of sweet clover does not depend on artificial inoculation or fertilization as does the alfalfa plant.

Another advantage is that the seeding does not have to be done so early. The seed of alfalfa should be sown from the fifteenth of August to the first of September, if best results are expected. The seeding of sweet clover should be done about the first of October. Four to six weeks are gained for the maturing of crops growing on the land to be sown to sweet clover, which may be corn, tobacco, tomatoes or other farm and garden crops, while the land to be sown to alfalfa should be broken and thoroughly cultivated before seeding, which requires about four weeks.

The sweet clover yields as much forage, if not more than alfalfa. From analysis, the sweet clover contains the following composition:

Water, 6.86 per cent; protein, 22.55 per cent; crude fiber, 23.49 per cent; carbohydrate, 32.61 per cent; fat, 3.91 per cent; ash, 10.05 per cent, making its feeding value as a forage crop high. Its value as a fertilizing agent, in gathering nitrogen can hardly be realized. It has the ability to thrive splendidly on the poorest, sandy soil and on dry and badly-washed hillsides, where the other clovers would never start.

The seed of sweet clover should be sown thin on old worn fields, then the stalks will be large and heavily branched, producing a great amount of seed. About the first of September the stalks should be cut and placed in the ruts and washes. Then the seed will be scattered sufficiently to set a heavy sod and will produce a fine pasture the next season. The second or third year after sowing, blue grass will take in this locality and soon be a solid set.

A description of the sweet-clover roots will show that they are a high-class fertilizer. Unlike other legumes the roots are somewhat fleshy and not fibrous. During the first year these roots reach far into the ground and draw up from considerable depth an abundance of plant food which they store up for the second year's growth. On the death of the plant, at the close of the second year, the fleshy roots decay more rapidly than fibrous roots and their nitrogen becomes more quickly available for other crops.

My experiments cover the use of the following crops after sweet clover: beets, beans, onions, parsnips, cauliflower, celery, melons, raspberries, and strawberries. All show a marked advantage on the part where sweet clover was turned under after a growth of two seasons. The color and size of plants, as well as the amount and quality of fruit, were noticeable.

Prepares Land for Alfalfa

I think it one of the finest things in use to prepare land for alfalfa. Sow to sweet clover for one year; break the land turning under the young growth the second spring about the first of June and cultivate until ready to seed to alfalfa. The germs of bacteria will increase rapidly and the soil will be filled so full that the alfalfa plants will grow right off and make two or more good crops the first season after sowing in the early fall.

As a soiling crop, it is right up to the front. Combined with blue grass it makes one of the finest pastures known to stockmen. Unlike alfalfa, it improves by being pastured, yet again, like alfalfa, the stock have to become accustomed to it before they will eat it with a relish. But, when once they have learned to eat it, they prefer it to all other grasses.

As a pasture for hogs, the chief difficulty lies in the fact that the hogs want the roots as well as the tops. They eat the grass readily from the first, seeming to like its peculiar flavor, and are also fond of the hay, eating it more readily that that of red clover.

Another one of its many good qualities is that cattle may be fed exclusively on sweet clover and under the conditions most favorable to bloating, without any danger from this trouble, coumarin, one of its constituents, the principle which gives it its bitter taste, effectually prevents the fermentation that results in bloating.

Kentucky. J. W. GRIFFIN.

Alfalfa Experiments

ALFALFA is without doubt one of our most valuable plants for hay, feeding green or for silage.

In 1907 we had, near Delphi, Indiana, a tract in peas for canning purposes. These were cut in early June and the land replowed and planted in sweet corn. By September this crop was out of the way and the field was sown in alfalfa. The corn stalks were not removed but left for shelter to the young alfalfa.

The soil was a rich river-bottom land subject to annual overflows. Fortunately we secured a fine catch and by winter the field was well coated with foliage. The spring of 1908 brought a flood which left a slight deposit on the field. Three crops were taken from it that season.

Last spring found grain feeds high and scarce and we tried feeding the green alfalfa to hogs. In May we began cutting enough each day for a bunch of young pigs and shoats. We intended to add grain rations but they ate the alfalfa with such a relish that the grain was omitted and increased rations of the alfalfa were given them. After cutting the field over once we decided to change feed for a while and secure a crop of hay. By the middle of July the alfalfa was cut again for hay. While not overlarge, yet it made most excellent hay and gave nearly a ton to the acre.

We are feeding again to the hogs, and after cutting this the third time we intend leaving it for the winter coat and pasture.

No other plant will stand such close treatment with as good results. Our farmer friends should pay far more attention to this crop.

Alfalfa derives its nitrogen from the soil in its early growth and afterward it takes largely from the air and stores it away in the soil for other crops to use, so that it does not exhaust the soil.

J. H. HAYNES.

The Cost of Producing Wheat and Corn

I NOTICED an article in the August 25th issue of FARM AND FIRESIDE by J. H. Haynes, giving the cost of raising an acre of corn, and an acre of wheat. I am a farmer myself, located near the central part of the state. I have been keeping account of the cost of raising my crops for a few years and find that these crops are not so expensive with us as they are with him. I give my figures, based on a ten-acre field of corn raised in 1908, and on an eight-acre field of wheat raised in 1909. These figures may be taken as the average cost of raising these crops in this locality.

Cost of an acre of corn: Team at thirty cents an hour for 18.1 hours $5.43, cutting $1.75, husking and cribbing $2.75, rent $3.00, twine 10 cents, total cost of production $13.03.

Value of crop: 40 bushels of sorted corn at 60 cents a bushel $24.00, 15 bushels of sortings at 40 cents a bushel $6.00, 35 shocks of fodder at 8 cents a shock $2.80, total value $32.80; cost $13.03, leaving a profit of $19.77.

Cost of an acre of wheat: Disking one and three fourths hours at thirty cents an hour 52 cents, drilling two hours at thirty cents an hour 60 cents, seed, twine and binder $3.77, rent $3.00, cutting and shocking $2.40, threshing $1.63, total cost of production $11.92.

Value of crop: 15¾ bushels of wheat at $1.00 a bushel $15.75, straw 50 cents, total value $16.25, cost $11.92, leaving a profit of $4.33.

Ohio. H. S. ROLISON.

Stable Manure on Fall-Sown Wheat

FOR a number of years we have practiced the method of getting out most of our barn-yard manure late in the autumn from the sheds and stables where it is not leached by the weather, and placing it upon our fall-sown wheat ground, or upon corn-stubble ground to be sown to oats the following spring, and must say, that, where we have practiced this method and scattered the manures thin and even upon the ground, we have had generous returns in the following small grain crop.

All of our stable manures are hauled during the winter from the stables directly to the fields upon the sled or low-down wagon and scattered out while the ground is frozen, and we know that we get double the value of the manure product by this method of handling but once, rather than by the usual method of throwing it into unsightly piles about the barn-yards to rot and form fermenting piles, for the cattle to slush through during open winter days.

We can see no harm from our entrance upon the field as we aim to do the work while the ground is frozen, and then by top dressing the wheat we can see from the opening of spring up to harvest time the practicability of using our barn-yard litter in this manner.

The crop not only stools out better and sends more vigorous stalks to bear the heavy heads of grain, but we can notice an unusual increase from the acres treated in this manner, and what is more the quality of the grain is very much better.

Our foreword at all times is to get the manure crop out upon the fields as soon as possible after it is made.

GEO. W. BROWN.

A Young Plant of Sweet Clover (Melilotus) Showing the Roots Covered With Tubercles Which are Produced by the Bacteria in the Soil

Variety Test With Potatoes

LAST spring I secured two potatoes of each of several varieties in order to make a test of them as to earliness of maturity, yield and practical utility, compared with varieties I had grown for a number of years.

The potatoes were cut to a single eye in each piece and planted each variety in a row lying adjacent to each other. Each variety was marked by stakes, set up at each end of the row, which were numbered and the name of the potato written on the stakes. A record of these was kept in a blank-book and the potatoes given the same cultivation as the other potatoes around them. The ground around them was planted to Early Rose potatoes of my own growing.

All of the potatoes had a small handful of hen-manure put in each hill. Two of the varieties were mixed, as there seemed to be an early and a late variety growing in the same row, and no account is taken of them in this report.

The Woods' Earliest was first in ripening as they were ripe by the fifteenth of July. Extra Early Sunlight ripened by the first of August. The others ripened a few days later, just about with my Early Rose from home-grown seed. Below I give the yield in pounds of each of four varieties as soon as they were dug. I also give the yield from home-grown seed growing at each end of the Early Rose row.

Variety	No. of Hills	No. of Pounds
Wood's Earliest	9	17.5
Early Rose	11	22.5
Extra Early Sunlight	11	21.5
Sir Walter Raleigh	11	16.
1. Early Rose, home grown	11	19.5
2. Early Rose, home grown	11	25.5

The soil in which all of these were grown was as uniform in fertility as I could select. The fertilizing and cultivation were the same and all were planted on the same date. The difference in yield of the two plots of home-grown Early Rose is not accounted for as they were in the same row with the Early Rose I secured from Richmond, Virginia.

Calculating the Wood's Earliest to eleven hills we have twenty-four pounds, the best yield of either of the four varieties tested. Considering that they were more than two weeks earlier than the Early Rose they appear to be the best variety of the four, for the person who is growing potatoes for the early market. They were uniformly of good size with hardly a small potato in the lot. In fact there were hardly any small potatoes in any of the varieties except in the Early Rose grown from the home-grown seed which had several small potatoes among them and also some very large ones.

The home-grown Early Rose seed was from potatoes that have been grown in this locality for twenty-five years or more, and there seems to be no degeneracy for growing them for so long a period in the same locality.

West Virginia.

Around the Farm

Items of Interest and Value to the Progressive Farmer

A City Man's Mountain Farm

SUCCESS in farming depends more upon the man than conditions. Over thirty years ago a Chicago salesman found himself overtaken by sickness and with little hope of recovery. He then cast about for a place where he might establish a quiet, unpretentious home in which to leave his family. In a deep cove at the foot of the Pocono Mountains in northeastern Pennsylvania he found a beautiful level spot of about eighteen acres. Here he bought a building lot and erected his house. He declares that he was so totally ignorant of country affairs that as simple an operation as planting beans required the assistance of his wife, who had had some experience with town gardens. But with her help, a little garden was planted to supply the home table.

But the climate in mountainous Pennsylvania is invigorating, the air pure and the water good. The second year found his health much improved. Ere long he gave up the idea of dying and found that gardening was most attractive to him. Fortunately the little valley in which he had chosen to place his home was of a fine sandy loam, not very rich, but offering the physical qualities that are of such great importance to the intensive gardener. Ideas gained from faithful reading and study mingled with common sense and energy, enabled him to produce real crops of vegetables and it was not many years until the whole eighteen acres of bottom land was his.

But what was a market gardener far up in the wilds of the Pennsylvania mountains to do with the product of eighteen intensively tilled acres? No mining, no manufacturing, no town save a little county seat of two thousand. Not a favorable outlook, to be sure, but the truck must be sold. With the town and a large, though widely scattered summer population as a basis, he established wagon routes to bring the produce direct to the consumer. Of recent years, it has required fifteen to eighteen trips a week from the farm, and five or six more from a railroad station on the mountain to supply the demand. Some of the routes cover as much as forty miles of rough mountain road.

To meet the demands of his trade, forty-eight acres of upland had to be purchased and operated in connection with the original farm. This land is mainly devoted to fruit and berries. A small greenhouse with cold frames enables him to market throughout the winter as well as to raise his own early vegetable plants.

The method of maintaining fertility on this farm is decidedly unusual. Manure in sufficient quantity is not available, and the ground cannot be given over to a cover crop long enough to make crimson clover a success. As a substitute for these, rye and hairy vetch are sown at the rate of a bushel of each to the acre. The fact that the vegetable crop can seldom be gotten off till late fall does not interfere with success. The vetch is more active in nitrogen gathering if sown earlier, but even if planted as late as the middle of October, it brings most beneficial results. The rye increases the amount of humus and serves as a support for the vetch. In the spring, after a good growth is made, the sod is turned under, and in this way, with judicious use of lime and commercial fertilizers, money crops are removed from the land year after year without reducing the fertility of the soil.

And yet they say to be a successful trucker a man must learn the business from his youth up, must have the ideal soil, with an abundance of manure available, and must, above all, have city markets nearby. PAUL WORK.

On the Sunny Side of Ninety

"LET'S go over and make Robert a visit. It would do him a lot of good."

We had just finished hoeing the potatoes, Grandfather and I. It so happened that I was able to lend a hand for a while that day, and with the work off our hands, and the sun well up the western sky we felt that we need not be in a hurry to get back home for supper.

"All right. Shall we go around or can we get over the wall?"

"Guess we will tackle the wall. Billy left a good many long stones sticking out when he laid up the wall. We can step those and get over all right."

So we "tackled the stone wall," Grandfather and I, he on the sunny side of ninety and I a third of a century or so less. Think of a man more than ninety years old out on a hot summer day digging in the potatoes! There is a grit for you! Isn't it enough to shame some of us younger folks who think when we reach fifty the time has come for us to slow down a bit?

It took a minute or two to climb that stone wall. Joints do sometimes get a trifle stiff—but not Grandfather's! Not a bit of it! The stones on the top of the wall rocked a little, that is all. When that happens one must go slow and be careful!

Robert, with the blue sky of Scotland in his eyes and the burr of his native hills in his tongue, himself also on the sunny side of ninety, a month younger than his neighbor, met us with a glad tone in his voice.

"Why, how do you do, Otis!" Just as if they lived a hundred miles apart and had not met in years. "A'm rale glad to see ye! Come in an' sit doon! I was juist sittin' awhile, takin' a peep at my book. How are ye, onyhoo?"

And then such a visit! It was only for me to just sit still and listen as the two neighbors sat there with the door open and the soft breezes playing with their silvery white hair, and looking out over the farms they had cut out of the woods of New York.

"You an' I have done a lot of mischief in oor day, Otis, cuttin' doon the big trees an' burnin' 'em up! My! Do ye remember them trees we chopped down on my flat there? It was a man's work to step up to one o' them on a hot day like this with an axe! But we did it! We worked many a day together, Otis!"

You could see that they loved each other. The other day the minister called on them both. At the home of the old Scotchman he began to say something favorable to Mr. Fuller when the old man broke in with, "Fuller? Ye canna tell me onything aboot him! We've lived together for more than sixty years!"

Sixty years! They were only thirty when they hung their coats on the limb of a tree and went at it to hew their homes out of the woods. Sixty years growing crops side by side! Sixty years meeting each other day by day, dealing with each other and fighting each other's battles. Sixty years without a sign of a quarrel.

"I remember one time my cows got through the fence and ate a big hole in Robert's cabbage. I went up and tried to settle with him, but he wouldn't let me. Then it run along a while and his cattle got over and helped themselves to my corn. Robert wanted to make that right with me, but he couldn't do it!"

And there they are, still doing business as of old. Not that they do as much work with their own hands as they once did. But both keep the ribbons in their own hands and hire help to do the work. It is harder getting along than it used to be, for hired help in these days is scarce and one cannot always get men when he would like them. So the farms are not kept up just as they were once. The fields show it in the lessened crop of grass and the scanty growth of grain; but those farms may be brought up again by a proper system of rotation.

On his farm Mr. Fuller is saving some fine timber. Pines and hemlock, tall, straight and beautiful, grow side by side with valuable oaks.

"They can't have that timber," he declares. "I have been keeping it all my life and they can't get it away from me now!"

I wish many other farmers had this spirit. It would be better for our country. And another fine thing this old man said not long ago when we had been speaking about the money his two large orchards had brought him in.

"I'm going to set out some more trees!" he stoutly asserted. And then when some one said he rather doubted the propriety of a man upwards of ninety setting out trees he emphatically asserted:

"Well, I'll do it! Somebody'll want the fruit. I may myself!"

There spoke the man and the philanthropist. Not satisfied to sit down and enjoy the fruit of his own hands, but still looking away on into the future. It did the heart good to listen to such talk as that. Most men past ninety are sitting in a rocking chair dreaming and waiting for something, nobody knows what. Here are two men on the homestretch for a hundred, planning and working for the days to come! Where will you find the like of that anywhere else?

What is the use, I wonder, of growing old? A man is not as old as his legs are. What if they do get tangled up now and then and refuse to go where their owner wants them to go? The heart is what tells the story of a man's age. Measured by that these men of the hills are far, very far, on the sunny side of ninety.

Now the sun slips on toward the skyline. From the chimney yonder we see the smoke curling up as the daughter goes about heating the kettle for the cup of tea for supper. We say good-by to Robert.

"Come ag'in. Come oop some day, Otis, when ye can stay a good long time! It's rale good O' ye to come to-day! Noo good-by!"

Through the softening twilight we take our way back to the old farm-house, thankful that in His mercy God has spared these good old veterans so long. May their shadow never grow less!

E. L. VINCENT.

The Poison-Ivy Vine

A SAFE, sure and never-failing remedy for poison from the poison-ivy vine, or poison oak, as it is sometimes called, is made of equal parts, by measurement, of sweet-oil and spirits of camphor. Shake well before using, and apply lavishly every half-hour until relief is found, then every three or four hours until all appearances have vanished.

After the blood has become poisoned, sweet-oil should be given in tablespoonful doses, with two drops of camphor, every four or five hours. This relieves, cleanses and cures the stomach and bowels which become irritated just as the outer surface of the body.

The symptoms of ivy poison are an itching or burning sensation of the parts affected and the gathering of small, watery pimples on the surface of the skin, which, when rubbed or broken, tend to spread the poison.

If taken in time, it is very easy to stop, but if permitted to spread over the body and neglected, it becomes more serious than any form of itch or eczema, as it enters the blood, causing much pain, discomfort and sometimes death.

Light-complexioned persons contract the poison more readily than dark-skinned ones, hence they should be more careful, if not acquainted with the poison-ivy vine, as to what vines they handle or go near. J. W. GRIFFIN.

Autumn Notes

Some warm hog-houses, built before cold weather comes on, will mean a saving of feed and hog flesh—another way of saving less expense and more money in your purse.

Crowd the fattening pigs along, now. If you hold them till cold weather, it will then take so much more feed to keep them going, that it's a question whether or not they will pay even for what they eat.

Don't let cold weather catch you napping. The first freeze is the one that always plays the sneaking, damaging tricks on a fellow. So wake up, and take notice of what ought to be done before winter; then see that you do that in good season.

Now's the time to break the chickens from roosting out among the sheds and trees. You are liable to neglect this till freezing weather strikes them unawares; then, with frozen combs and frost-bitten feet, the fowls will lay very little, if any, till next spring.

Getting a better sire to head the flock of sheep, is simply a matter of economy. The cost may seem exorbitant, but the superior type of lambs thus secured next spring will cause you to consider the high-bred sire a safe and profitable investment, after all.

Late in the fall is the ideal season for painting up all the farm buildings. There are no flies and insects to dab into the paint, die there, and mar the appearance. No heat blisters and cracks in the smooth coating. The weather is just the right temperature—neither hot enough to melt the paint and cause it to run down the sides of the buildings in unsightly streaks, nor cold enough to prevent the oil from penetrating the cracks and pores of the woodwork. M. A COVERDELL.

Meeting the Conditions

THIS year we had a fair illustration of some of the uncertainties of farming. Just as about four fifths of the land was plowed for corn, heavy rains set in and continued for about four weeks, packing the soil as hard as it was before plowing. Some of it was replowed and some well disked and made ready for planting as quickly as possible. Immediately after the seed was in more heavy rains came, beating the soil hard again. Soon as the weather settled and the soil became dry enough the cultivators were set to work, but as the ground was packed hard the work was necessarily very slow. We had time to go over the fields once, when more rain put a stop to the work. By the time the soil was dry enough to work again clover was ready to cut and had to be attended to. Then the corn-fields were tackled again, but the cultivating was slow, hard and difficult work. Before the soil was in proper condition to make the crop, the corn was too high for the cultivators to pass over, and single plows drawn by one horse were put in. Then came a storm that laid the plants flat on the ground. They raised up in a few days, but the lower part of the stalks were so bent that farther cultivation was out of the question. In a short time dry, hot weather set in and baked the soil about as hard as a brick, and of course the crop will be cut short.

Owing to the unfavorable weather the crop will be cut short fully twenty bushels an acre, while the actual cost of growing the crop has been about doubled over an ordinary season. No amount of foresight or farming skill could have averted the difficulties encountered, or enabled farmers to do better than they have. We have no control over the weather, and it caused all the extra labor, increased the cost of growing the crop, and also cut it short.

The Season Controls the Cost

This season has shown the utter impossibility of figuring out the exact cost of growing a crop before it is grown. One season the plowing is easy because there has been just enough frost, and just enough rain to put the soil in the best condition for cultivation, then the spring and early summer weather is ideal for starting the crop and giving it the cultivation necessary to hustle it along, and to leave the soil in splendid condition for finishing the crop and insuring a maximum yield. In such seasons the plowing and cultivation are easy and can be done rapidly and at the smallest expense, and as the yield is large the profits are large. But in such a season as the one just closing the work is hard, much of it must be done twice over, the stand is uneven, and the crop is cut short because cultivation cannot be done in any sort of satisfactory manner. When one fully understands the difficulties that have been encountered in growing the crop he finds himself wondering how it happens that it is as good as it is. But if he will ask the farmer he will learn that every opportunity was taken advantage of promptly and the work pushed to the limit with the most improved tools, and things were done that could not have been done with the tools we had a couple of decades ago. Farming has become more certain because the farmer is better equipped, and because he has learned to instantly take advantage of every opportunity offered.

Not many years ago almost an entire crop of wheat was lost because it could not be harvested. Heavy and continuous rains had made the ground so soft that the reapers could not be run. What little was cut yielded about thirty-five bushels an acre, and thousands of acres of such wheat were lost.

Over a large tract of country conditions were exactly the same this year, yet every acre was cut. One man with a harvester of the latest improved pattern, with trucks to carry the front part of the machine, and six good horses cut nearly four hundred acres for himself and neighbors. The wet wheat was shocked up and dried in the field after the rains ceased. Some of it sprouted a little, but much the greater part of it threshed out all right. The horses drawing the machine walked in mud all the time, and the machine pulled somewhat heavy, but they took it right along, and despite the heavy rains no wheat was lost. We cannot manage the weather, but, we are rapidly getting into shape to go ahead despite the weather.

FRED GRUNDY.

Around the Farm

Items of Interest to the Progressive Farmer

Concrete Corn-Crib and Tool-Shed

[CONTINUED FROM PAGE 2]

ter. The gables are laid by using a few one-half-size blocks; then by erecting boards on each side with the same pitch that the roof is to have, you can fill in with concrete the ends of the blocks so as to make them even and neat. If boards are to be used as a frieze, cut and place them in position, where they cover the open spaces at the ends of the blocks, drive nails into them, and then place concrete even with their tops and the concrete will thus hold the frieze securely in position by the nails anchored in it. Frame and place the roof using a two-by-six as a plate for the foot of rafter to rest upon. This will require your rafters to have a seventeen-foot run.

The spaces inside the foundation walls are now filled with stone and earth to a depth of twenty inches or level with the top of the foundation blocks, and, if a plain floor is desired, lay a coarse grout mixture to a depth of three and a half inches and finish with a half-inch richer mixture, made with sand only, smoothing down so as to be level.

Where an air ventilated floor is desired you can accomplish this by laying the second coarse of foundation blocks made with the same cores as used for the side walls of the crib. Now you may fill the space next to these blocks with stone laid in so as to make voids between them, or by laying small tile under the floor across the width of same; this allows the air to circulate under the floor and makes it impossible that any dampness collect there. The method of placing tile is shown in "Detail of Floor," Fig. 4, which is a great advantage where large quantities of grain are to be stored.

Door and window frames are made and fitted in the usual manner. Where it is desired to have the corner blocks smooth at the ends you may, in molding them, leave off the beveled strips from the end boards of the mold at one end.

Estimate of Twenty-Eight-by-Thirty-Four-Foot Crib

The walls require eleven hundred and thirty full-size blocks and fifty-eight half-size blocks molded with the cores. This requires thirty-six and a half cubic yards of concrete, or,

55 barrels cement at $1.50	$ 82.50
48 cubic yards gravel at 75 cents	36.00

Foundation blocks, 164 of which are required, the concrete in the six beams and also in the sixteen-inch ledge around the walls, requires sixteen and one half cubic yards of concrete, or,

23 barrels cement at $1.50	$ 34.50
20 cubic yards gravel at 75 cents	15.00

The rough concrete in the twenty-two-inch trench mixed 1:8 will require ten cubic yards of concrete, or,

11 barrels of cement at $1.50	$ 16.50
15 cubic yards gravel at 75 cents	11.25

The floor laid four inches thick will require 150 cubic feet of concrete, or,

8 barrels cement at $1.50	$ 12.00
7 cubic yards gravel at 75 cents	5.25

The beams, 212 feet of half-inch rods and 144 feet of five-sixteenths-inch rods, or,

356 feet of iron rods half-inch and five-sixteenths-inch	$ 14.24
Total cost of concrete, reinforced	$227.24

Lumber Bill

36 pieces 2x6, 18 feet long, rafters	648 feet
4 pieces 2x6, 18 feet long, plates	72 feet
8 pieces 1x4, 18 feet long, cornice	48 feet
8 pieces 1x6, 18 feet long, frieze	72 feet
4 pieces 1x6, 18 feet long, ridge B.	36 feet
9 pieces 1x6, 12 feet long, doors	54 feet
	930 feet

930 feet at $30	$ 27.90
1224 feet roof sheathing at $20	24.48
11,000 shingles at $4	44.00
55 pounds nails and spikes at $3	1.65
Total cost of lumber	$ 98.03

Labor Bill

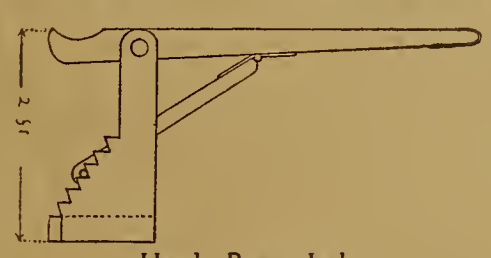
Excavating 10 cubic yards, trench at 50 cents	$ 5.00
Laying 10 cubic yards concrete in trench	6.00
Molding 1324 full-size blocks at $1.50 a day	26.48
Laying 1324 blocks, labor at $3.50	39.72
Laying and molding 115 cubic feet ledge	3.45
Mixing and laying 150 cubic feet floor	4.50
Framing 930 feet lumber at $10 per M	9.30
Laying 11,000 shingles at $1 per M	11.00
Total cost of labor	$105.45
Incidentals two per cent	$ 8.61
Total cost of building complete	$439.33

Using the above estimate as a basis the cost of any larger or smaller building may be secured but as this will meet the needs of a very large proportion of farm owners and as the cost compares very favorably with a wood structure of the same size, it should meet with the approval of all. A. A. HOUGHTON.

A Home-Made Buggy-Jack

The buggy-jack here illustrated is made of one-inch stuff and consists of a four-foot lever set between two notched uprights.

The hanger is attached to the lever by means of a hinge, and a pin in the lower



Handy Buggy-Jack

end catches in the notches of the uprights.

For a wagon-jack the hanger may be made of greater length. R. V. MILLER.

Points for Producers

The production of beet-sugar in the United States has increased from forty-two thousand tons in 1896 to four hundred and twenty-five thousand in 1908.

It is evident that we are not now raising and feeding cattle enough to meet the increasing wants of consumers, nor are we feeding enough stock to maintain the fertility of the soil.

The most economical sources of nitrogen as food for plants, other than cowpeas, clover or vetches, are nitrate of soda, ammonium sulphate, dried blood, fish and tankage and farm manures.

The shortage of farm labor and decrease in the acreage of crops is now the rule in both the United States and Eastern Canada. The remedy is more grass, more stock and more intensive culture of tillable land.

Irrigation is now recognized in the older states as a valuable agent in the production of all fruit and trucking crops, as supplementing an inadequate rainfall during the growing of the crop when rain is the most needed.

The value of the work of the various experiment stations can be increased many times by increasing the number of demonstration places—farms or otherwise—in each county, whereby the actual gain can be shown which comes from improved methods of scientific agricultural practice.

The experiment stations of Ohio and other winter wheat-growing states, are showing us that increased average yields of wheat can be secured, even on badly worn lands, by the liberal use of phosphoric acid, better drainage, better preparation of the seed-bed, and the use of clean, plump seed.

Farmers are beginning to take the sensible view of doing business by ascertaining the cost of production and keeping posted as to the best markets for their varied farm products. Better methods of producing, handling and selling are now in order. The successful farmer of today is the one who has the genius for doing things.

6% BONDS

Secured by Farm Liens

$100 and Up

In the irrigated districts, there are millions of acres of the finest farm land in America being brought into fertility. The crops raised on this land are marvelous. The first season's crop very often pays the whole cost of the land.

To water this land, immense Irrigation Companies are organized to build reservoirs, dams and ditches. Some are organized under the Federal law known as the Carey Act.

The farmers, to secure perpetual water rights, give to these companies a first lien on their farms, to be paid in ten annual installments. The lien rarely amounts to more than one-fourth the cash value of the land.

The Irrigation Company deposits these liens with a Trust Company. Then bonds are issued with the farm liens as security. Back of each $100 bond the Trust Company usually holds $150 of this farm lien security.

In addition, the Irrigation Company gives to the Trust Company as trustee a first mortgage on all the property it owns. This mortgage is held as extra security until the last bond is paid. So the best Irrigation bonds are doubly secured—first by the farm liens, second by the company's mortgage.

Ideal Security

Sometimes these Irrigation bonds are issued by districts, the same as School bonds. Such bonds become a tax lien on all property in the district. The interest and principal are paid out of taxes.

All these bonds, if rightly issued form ideal securities. The farm liens alone would place them among the very safest investments. But we have, in addition, mortgages given by immense corporations which must see that every obligation is met. It is hard to conceive of a better protected investment.

Six Per Cent

Irrigation bonds are issued in denominations of $100, $500 and $1,000, so one may invest either little or much.

Part of the bonds are paid off every year. You may buy a bond due in two years, if you wish, or in twelve years, or in any year between. Every bond paid off, of course, increases the security back of the rest.

(2)

The bonds pay six per cent interest. This is a higher rate than can now be obtained on any large class of equal securities.

We handle all good classes of bonds—Municipal, Corporation, Public Utility, etc. But Irrigation bonds have become the most popular bonds that we handle. Their ample security and high interest rate have made them the favorites of the shrewdest investors.

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We are the largest dealers in this class of security. Our own engineers and attorneys pass on every project. Our officers personally inspect every enterprise on which we sell bonds.

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We sell the bonds, if you prefer, through your local bank. If so, please give us the name of your bank and we will send full information when we send it to you.

Ruralisms

It is amazing how much clean, cool water chickens will drink in hot weather. Then don't neglect this. Nor plenty of shade, either.

In planting parsnips I always put a row of beets between each two of parsnips. By the time the beets are fit to use it leaves room for the parsnips to grow.

When a hen becomes thoroughly objectionable on account of bad traits it is better to send her to market at once, than to be irritated by a fowl that is a nuisance.

Both Canada and Argentina are using every effort possible to secure American farmers as citizens. The reason for this is that they are the reading, thinking, progressive and "know-how" kind.

The two parts of the harness upon which safety, and often life, depends are the hame-string, and hold-back straps on the shafts; and in nine cases out of ten these are overlooked and allowed to get worn until disaster follows.

The farmer who cuts down all the shade trees in his pasture to prevent his cows wasting time lying in the shade is lowering the milk mark in his pail, and inviting the attacks of gadflys and sunstroke. If there is no shade plant it.

From years of observation I have found much of the crop failures due to the farmers' own carelessness. A hastily prepared seed-bed, carelessly attended or never hoed crops, delay in seeding, all invite crop failure; but a careful study of conditions, skill in culture, and perseverance will bring full crops.

I always did say, in spite of the general opinion, that you cannot raise good corn without clean culture with a hoe, pulling out the weeds between the hills and where the cultivator doesn't hit (cutting off a weed merely makes it branch, but when the root comes out Mr. Weed must die). Clean culture, with not a weed in the field until the cars form, with manure spread broadcast among the rows—then you see corn!

C. E. DAVIS.

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GEO. W. PARK, B51 LaPark, Pa

Gardening---By T. Greiner

Cabbage Lice

Another effect of the hot and dry fall weather is the inordinate multiplication of green, or gray, lice on cabbages, turnips and similar crops. A few cold rains would have soon put them out of commission, or at least reduced their numbers to such an extent as to practically prevent injury worth talking about.

Most of us have waited right along, without making a decisive move for their destruction, in the expectation that rains will soon bring us relief. A better way, however, is to fight the pest with applications of either dusty or liquid materials. Tobacco dust is one of the best things, if we have enough of it. I have spoken of this before.

The great drawback in this fight with lice on cabbages is the many hiding places which the lice find in the folds and on the underside of the leaves. With turnips we have an easier road to success. The lice can be reached if we use the right kind of nozzle on the sprayer so that we can reach underneath the leaves and spray upwards. There are no hiding places on or in the head.

The Outlook

Has our gardening been a failure this year? I was inclined to think so. But when I hear the reports from some other sections, and consider the variety of good things we have in full supply from the garden, even in this comparatively disastrous season, I find that our efforts are not without some reward. I cannot deny that things are not wholly satisfactory. Rains have helped us some; but another period of drought has set in and our gardens are dry, and crops partially scalded and burnt up.

But look what we do have; and this quite plentifully, even if not in superabundance, for use and sale, of a normal season—beets, carrots, kohlrabi—all young and sweet and tender; delicious Thomas Laxton and Champion peas; solid heads of cabbage, of at least medium size; cauliflower; early potatoes (Ohios and Eureka), fair-sized and mealy; egg-plant; sweet peppers; Lima beans; sweet corn; string beans; tomatoes as large, as solid and as good as ever, and in the customary full supply. Besides all these, choice celery is just about ready for use; fall and winter cabbages are making good and satisfactory growth; turnips and winter radishes also are coming on all right. With all these things to make a choice from, and in good supply, we are not going to worry over the short crops or comparative failure of onions, cucumbers, melons, squashes and pie pumpkins.

We still have plenty of good rhubarb, which we now can use for sauce in place of the plums we used to have in other years, or other fruits that are now unusually scarce, and we are putting up an extra number of cans of it so that we shall be able to eat rhubarb pie on Thanksgiving or Christmas in place of the customary pumpkin pie.

Home-Grown Cauliflower Seed

A Montana reader says he has planted cauliflowers early, and asks whether the seed they will produce is good for sowing next year. If our friend can raise cauliflower seed in his locality (which we cannot do here, or in most parts of the United States), such seed might be used, and I would expect some measure of success if conditions are favorable.

Mr. Francis Brill, an experienced cabbage and cauliflower grower on Long Island, New York, states in "Farm Gardening and Seed Growing" that cauliflower, "if planted very early, will blossom, and some seed will set under favorable, circumstances, but that the surest way is to sow in July, transplant, and keep the partially-grown heads over winter in a cold-frame or cellar, and set them out early in the spring, similar to our treatment of early cabbages for the same purpose."

I have grown good cauliflowers from seed produced in the Puget Sound region, but ordinarily we depend on seed imported from Europe.

Cow-Peas for Manure

A Texas reader asks me whether cow-peas plowed under would make a complete fertilizer for cabbages, or whether commercial fertilizers should be applied with the cow-peas.

There are two things we can accomplish by growing leguminous crops for manure, namely draw nitrogen from the air to enrich the soil, and put the land in better mechanical condition, especially to put lots of organic matter or humus into it. But we cannot expect to add mineral plant-foods to the soil except by taking it from the subsoil and bringing it up nearer the surface, or generally making it more available for succeeding crops.

The cow-peas themselves may contain plant-foods in fairly balanced proportions, and yet this system of manuring may be considered one-sided, and in order to make it most effective, potash and phosphatic applications are useful and may be needed. This is true of cow-peas as it is of clovers, etc. Even without mineral fertilizers however, cow-peas are a good thing, in the Middle and Southern states, and idle lands might often be used for growing a crop for manure.

Cotton-Seed Meal

The same inquirer also asks whether cotton-seed meal will make a complete fertilizer for general vegetable crops. No, it will not. Cotton-seed meal usually has about six per cent, or slightly more, of nitrogen, one and a half per cent, or slightly less, of total phosphoric acid, not all of it soluble or readily available, and a trifle less than one per cent of potash. It is therefore principally a nitrogenous manure, and very good when reënforced with superphosphate and potash. It is good and useful, but not as quickly or strikingly effective as we find nitrate of soda when applied alone.

White Plume and Chicago Giant Celeries

A good many of the readers of FARM AND FIRESIDE, I believe, have tried, on my suggestion, the Chicago Giant celery introduced by a Chicago firm in 1907. That year the seed sent me was remarkably large, and the seedlings came up strong and thrifty. This year, I was disappointed in the looks of the seed. It was smaller even than of White Plume or Golden Self-Blanching. It came up somewhat feebly, too. But "one should not praise the day before evening." The seedlings grew, and grew and grew, and soon overtook the others that had taken a quicker first start, and all my plants of this variety now show the same strong growth as they did last year. All they want now, to make celery of A No. 1 quality and size, is rain, plenty of rain, and they will get there.

Rushing the Season of Early Tomatoes

A Tennessee reader wants to know what he should mix with his stable manure in order to hasten the ripening season of his early tomatoes. He wants nice smooth ones. We all do that. We get them, too, when we plant the seed of strains of smooth tomatoes.

I just came back from a trip to the northeastern end of this county where the soil is almost clear sand, hardly deserving the name "loam." There the farmers raise early tomatoes and melons, and these crops often many years in succession on the same land. Earliana is the variety raised, and it gives a moderate crop of very early tomatoes. In point of smoothness, however, there is much left to desire and to improve. A good lot of tomatoes are marketed there that we here would give to the hogs, chickens or cattle. Marketing poor tomatoes is wrong. It spoils the market, even for good tomatoes. And no amount of manure, no addition of fertilizer to the manure could be expected to make rough tomatoes smooth. Selection of seed alone will do it. Take the tomatoes from the plant that gives the nicest smoothest specimens, as an average, and save their seed. Then you can expect to grow smooth tomatoes. Do this year after year and your rough Earliana will soon give you smooth tomatoes.

For the purpose of making your tomatoes earlier, you can do more by selecting early, warm, sandy soil and by starting plants early under glass, than by means of chemical or other fertilizers. The application of superphosphate, such as dissolved phosphate rock, or "acidulated" rock, may help a little. In some soils (sand) the early application of nitrate of soda may also be of some benefit in the same direction. But if you will set good early plants of a selected strain of early smooth tomatoes, in fairly well enriched, warm, fibrous loam at proper time, you may look for ripe tomatoes which are not only early, but also good and smooth and salable.

PAINT TALKS No. 12

Painting for Winter Protection

Buildings needing protection should be painted in the fall, when surfaces are dry and in ideal condition for painting. Farm implements, too, should be painted at this time.

It is the frequent moistening and drying-out which takes place in winter and spring that is the greatest cause of decay in wood.

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"For a number of years," says a Kansas lady, "I felt sure that coffee was hurting me, and yet, I was so fond of it, I could not give it up. I paltered with my appetite and of course yielded to the temptation to drink more. At last I got so bad that I made up my mind I must either quit the use of coffee or die.

"Everything I ate distressed me, and I suffered severely almost all the time with palpitation of the heart. I frequently woke up in the night with the feeling that I was almost gone—my heart seemed so smothered and weak in its action that I feared it would stop beating. My breath grew short and the least exertion set me to panting. I slept but little and suffered from rheumatism.

"Two years ago I stopped using the coffee and began to use Postum and from the very first I began to improve. It worked a miracle! Now I can eat anything and digest it without trouble. I sleep like a baby, and my heart beats full, strong and easily. My breathing has become steady and normal, and my rheumatism has left me. I feel like another person, and it is all due to quitting coffee and using Postum, for I haven't used any medicine and none would have done any good as long as I kept drugging with coffee." "There's a Reason." Read the little book "The Road to Wellville," in pkgs.

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

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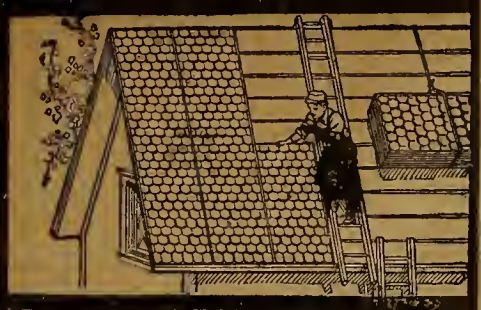

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Fruit-Growing

By Samuel B. Green

Trees From Seed

J. A. L.—All of our native trees may be grown from seed. The time for gathering the seed differs with the different trees.

White-pine cones should be gathered about the first of September, before they open on the tree. When gathered they should be spread out thinly on papers in the full sunlight where they can dry, and will then generally open, when the seeds may be easily shaken out. A pound of white-pine seed will generally give from one half to three fourths pound of good seed, free from the wings. Spruce-seed is gathered in much the same way, but our native white spruce does not produce any great abundance of seed; and my experience seems to show that it is better for us to use the European or Norway spruce, of which the seed is more easily obtained. This can be bought from the dealers for about one dollar a pound, while white-spruce seed will cost several times as much.

In regard to basswood-seed, these should be gathered in late autumn or early winter, mixed with sand in the ground over winter, and sown in the spring of the following year; but they will not start into growth until the next spring, that is, they lie in the ground two winters and over one whole season before they germinate; but if properly treated, they are easily grown, except for the fact that they are a long time in coming up.

Time to Transplant Trees

In the southern or south-central states, late autumn or winter is generally the best time for transplanting hardy plants. Further north, and especially where the work is done by those who are not experienced, it is best to transplant early in spring. This is especially true of such trees as the peach and cherry, which are liable to be injured in severe winters. In favorable locations, the prune, plum, pear and apple can generally be safely planted in the autumn.

All of these trees do best on high ground, and are seldom successful on that which is low. The pear and prune do best upon a somewhat heavy, moist soil, but none of them will do well on what is ordinarily termed a low or mucky soil. Of the different slopes, the north or northeast is by far the best for all these fruits.

I think the best time to plant currants, gooseberries, raspberries and blackberries is in the autumn, but all of them may be transplanted successfully in the spring, and autumn-planting should never be attempted except when the soil is in moist condition.

Strawberry and Raspberry Plants

F. P. D., San Francisco, California—In regard to your strawberry plants, I cannot tell from your description why the Lady Thompson plants have not grown. It seems to me, however, that they must be weak plants, or they would have made a satisfactory growth by this time, and unless they show signs of vigor I should not bother with them, but would prefer starting a new bed with more vigorous plants.

If you think it is merely a lack of fertilizer that is preventing their growing, then I would suggest that you could work the fertilizer in between the plants without the necessity of taking them up, and that about the plants themselves you could use liquid manure or water to which nitrate of soda had been added at the rate of one ounce to the gallon. This will give them a good start if anything will.

There is considerable difference in the practice of strawberry growers as to runners. I think it is generally agreed that the largest quantity of strawberries is obtained where the runners are allowed to grow enough so as to stock the row with plants not over six inches apart and perhaps covering a space two feet wide. It is my practice to leave on a few of the runners, say four or five to each plant set out, and to keep the others cut off. I think you will get good results in this way.

In regard to the raspberry plants which you set out last spring, you should not expect these plants to bear much in the way of berries the first year; in fact, we seldom expect much of anything the first season. The large shoots coming out from near the base of the cane should be saved to produce fruit next year. You should remember that raspberry canes live two years. The first year they merely produce a good growth of wood and foliage, and the next year they bear fruit, and it is absolutely necessary to have a good growth of wood in order to get a good growth of fruit.

Top-Working Large Trees

Where large apple-trees need to be grafted, it is often difficult to find branches small enough to graft to advantage, since large branches generally form wounds that heal over slowly. To get around this difficulty, some of our orchardists are now following the plan of pruning back the trees severely, a year before they are to be grafted and thus make them form a considerable number of sprouts. A few of the most desirable of these sprouts are saved and are top-worked the following year. Treated in this way, a good union is easily secured on the sprouts, and the large wounds on the trees may be protected until they are completely grown over.

Best Plant for Hedge

N. N., Mankato, Michigan—I am inclined to think that all purposes considered the ordinary buckthorn (R. catharticus) is the best plant to use for hedges. It may be kept in a hedge two feet high or allowed to grow to the height of six or seven feet.

If you wish a hedge merely for division line only, then I think the Alpine currant (R. alpinum) is the best.

Treating Shingles with Creosote

J. A. F., State College, Pennsylvania—In regard to the creosoting of shingles, we have had some experience in this work. It is my opinion that the important points to consider in carrying it on are to have the shingles thoroughly dry, and if they are thoroughly dry, even in the middle of the bundles, you can get good results without opening the bundles; but you will get better results by opening them.

Buck-Brush Fruit

Mrs. J. S. M., Faldon, Nevada—The sample of buck-brush fruit has been received. I know this plant quite well at its northern range in Wyoming, Montana and the Dakotas. It also occurs occasionally in Minnesota. It is known throughout that section as Buffalo-berry or bull-berry. I have grown it in large quantities from seed, and find it productive and easily grown if the seed is sown in the autumn and allowed to freeze over winter. It makes a very good jelly or preserve, and in a measure takes the place of currants on our plains.

The Best Variety of Blackberry

V. H. G.—The best variety of blackberry for general planting in the north is perhaps the Ancient Britain. In the best fruit sections of Michigan and Ohio the Eldorado is probably most popular. You should bear in mind, however, that the peculiarities of your own location may be such that the varieties which are doing splendidly elsewhere may be something of a failure with you. I would suggest, therefore, that you write to the Professor of Horticulture, at the Geneva Experiment Station, New York, and ask what varieties he would recommend for your section of New York.

San Jose Scale on Plum

Mrs. R. F.—The plum branches which you send are affected with what is known as San Jose scale. This is one of our worst tree pests, and I would suggest that you write at once to the Pennsylvania Agricultural College, at State College, Pennsylvania, and ask them to recommend proper treatment for it.

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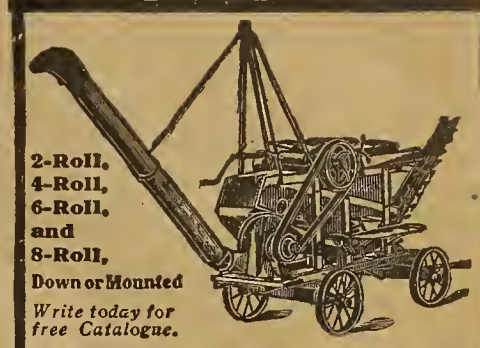

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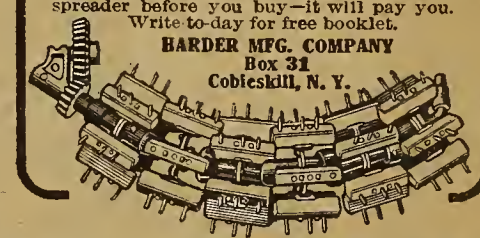

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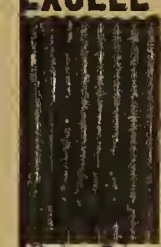

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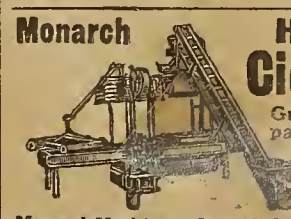

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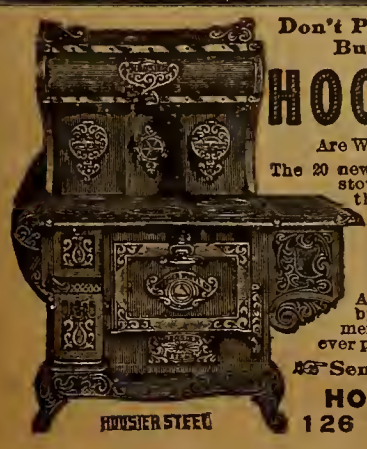

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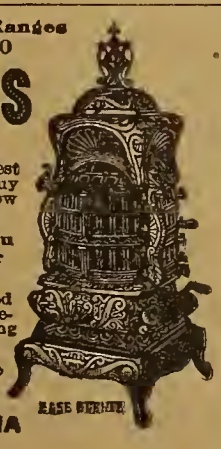

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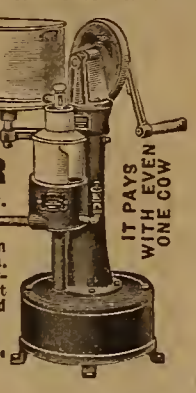

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Poultry-Raising

The Egg-Eating Habit

Egg eating is usually aided or caused by soft shelled eggs. To prevent this have a supply of lime, or lime plaster, before the fowls where they can easily get at it and give the feed in such a manner that the hens will be compelled to exercise for their feed.

If once your fowls get into the habit of eating eggs, a remedy which I have found to answer better than any other, is to give the hens a supply of egg-shells for a few days. Infertile eggs that have been set upon by broody hens, or that have been removed from the incubator, will answer the purpose; or egg-shells obtained from the bakers or other business houses where eggs are largely used. The shells must be given as whole as possible, not broken, and the birds must be allowed to surfeit themselves with them.

After several days of this the fowls will not touch eggs again, and the cure will be complete. But there must be a large and continuous supply while it lasts, so that the shells are lying about the pen all the time.

To use a nest with a false bottom is another way of preventing egg eating, so that the eggs when laid disappear down an inclined board into an underneath receptacle, out of reach of the thief. A. E. Vandervort.

For the Poultryman

We do not always appreciate the value of good, dry houses and yards for poultry. But if we stop and think that if we had to live all the time in damp quarters we would have lots of things the matter with us, and remember that all kinds of fowls and animals are affected in the same way, it will help us to see the importance of well-drained quarters for our birds.

Sometimes where chicks are brought up in a brooder, fed high, and not given much exercise the legs will get weak. It is a good plan to give plenty of bone, ground fine, and enlarge the run in all cases of this kind. These are good things to do for all brooder chicks.

Board or cement floors are best for poultry, especially if the earth where the houses are built is damp.

Now and then one can buy chicks cheaper than he can raise them. Keep the eyes open for chances of that kind.

If any one tells you that it is no work to take care of hens, you may set it down for a fact that that man is not getting much good out of his poultry business. It is business to win in any line, not less so in poultry than in selling goods over the counter.

How can growing chicks grow good, strong bone unless you give them bone-making material for food?

There is a great deal of satisfaction in raising the standard of your poultry. The only way to do it is to get better stock. Either buy eggs of a reliable man or the chicks after they have been started.

A city man showed me as fine a pen of White Plymouth Rocks the other day as you would care to look at. There were only five of them, but the day I saw them he got five eggs from them, and that at a time when most folks were complaining that their "hens didn't lay." But those hens were busy all the time at something. That's the secret of a happy, successful life every time, anyhow—keep busy.

Show me the man, in town or country who has no desire to have a few hens about him, and I will show you a man who has missed half his life.

E. L. Vincent.

In the Hen-Yard

Hens won't pay unless you make them do so.

A peck of lime and a good brush will save a peck of trouble.

Put carbolic acid in the whitewash liberally and then hunt for the lice—that are not.

Neglecting to fill the grit boxes with oyster-shell grit cost me a fine hen from indigestion.

Every day my hens are penned out of growing crops now, I give them cut clover, and the eggs repay the time lost in cutting it.

Give hens that are penned a few ripe apples every day to peck at. It amuses them, keeps them healthy, gives exercise, and keeps them from getting so hungry.

Remember that dusty roads now, will fill next winter's dust barrel; and it pays to drop all other work to get it, for a shower will spoil the dust crop for weeks.

I haul my road-dust in twenty-five pound paper flour sacks. They are easy to load and handle, but don't try to haul too many, or you will have a ton on before you know it. Dust weighs some.

Watch for cholera these hot days. Prevent it by frequent cleaning of the hen-house, providing plenty of shade, grit, and clean, cool water. Hot water, and dirty at that, will sicken the flock.

I save the droppings of the hen and chicken-house in sound flour bags (paper), and carry or haul them to the field to plow in the corn, or harrow in the wheat land. There is a clean way to do things. C. E. Davis.

Farm-Storing of Eggs

A good share of the profit of eggs goes to the men who handle them after they leave the farm. These men make a business of buying up eggs in the early summer when they are the lowest, storing them and selling them in the winter, often at twice what they gave for them. The risk is small and the return excellent.

Farmers have not very generally learned the art of keeping eggs, produced at low cost, and selling them when the prices are highest. It is a study which they may well follow with interest, for there is no reason why they should not reap the true benefit of their work, instead of the middlemen.

I was interested to-day in hearing a lady tell how she managed to hold a few eggs very successfully a year ago. This is her story:

"We took the eggs fresh from the nests every day. When we were ready for our work we took a little good, pure lard in our hands, rubbing it well into the palms. Then we rolled one of the eggs carefully in our hands, taking pains to have every post of the shell well covered. Scattering a good layer of wheat bran in the bottom of a tight box, we followed with as many eggs as we could stand on end, the big end down. Then another layer of bran and another of eggs and so on. Those eggs kept until the next winter and were as fresh and nice as they ever were."

The eggs should not touch each other when packed this way.

E. L. Vincent.

Poultry-Yard Insurance

There's a way of handling and feeding poultry which practically amounts to a guarantee system. Poultrymen call it "**The Dr. Hess Idea,**" and the "gist" of it is that the *process of digestion* has more to do with filling the egg basket than has the quality or quantity of the food given. That is—a small feed, *well digested*, is better than a large feed half wasted through *indigestion*. Practice proves this true. Fowls receiving small doses of

DR. HESS Poultry PAN-A-CE-A

every day in soft feed lay more eggs; fat quicker; are more hearty, healthy, active and contented than those fed without it. The reason lies in the *tonic* properties of the preparation. It acts beneficially on each organ—not as a stimulant or excitant, but as a *strength giver*. Dr. Hess Poultry Pan-a-ce-a, given as directed, means a *paying poultry business* to the man who gives it. It helps tide over and shorten the moulting season. It cures Gapes, Cholera, Roup, etc. It keeps young chickens growing every minute, and when fowls have passed the profitable age it puts them in good condition to sell at a good price. A penny's worth feeds 30 fowls one day. Sold on a written guarantee.

1½ lbs. 25c; mail or express 40c; 5 lbs. 60c; 12 lbs. $1.25; 25 lb. pail, $2.50.
Except in Canada and Extreme West and South.
DR. HESS & CLARK, Ashland, Ohio
Send 2 cents for Dr. Hess 48-page Poultry Book, free.

DR HESS STOCK FOOD (A TONIC) Any farmer or stock feeder can increase his profit balance at the year's end by following out "**The Dr. Hess Idea**" in feeding farm animals. *Digestion* is an important function to look after—food itself is not all. A *strong digestion* means the greatest preparation of food used and the largest ratio of growth and production made. Dr. Hess Stock Food gives great digestive power, therefore it makes more milk in the cow and more flesh on the steer. It also relieves the minor stock ailments. Fed in small doses and sold on a written guarantee.

100 lbs. $5.00; 25 lb. pail $1.60
Except in Canada and Extreme West and South. Smaller quantities at a slight advance.
Send 2 cents for Dr. Hess Stock Book, free.

INSTANT LOUSE KILLER KILLS LICE

Live Stock and Dairy

Home Cheese-Making

SOME time ago, I saw an article by W. H. U. in FARM AND FIRESIDE which treated on the above subject. Although I did not try his method, I consider my way the more easily understood by an amateur

Cheese-making is not extensively practised in ordinary farm homes, but there is no reason why it should not be, at least to the extent of home consumption. It is no more difficult a task or undertaking than that of baking a good batch of bread; and really I consider it less risky.

I take six gallons of morning's milk, put it into a clean wash-boiler, heat it to eighty-five degrees, remove from the stove and add one half of a rennet tablet which has been dissolved in a little warm water. I also add a little cheese coloring, for we do not like white cheese. These rennet tablets and coloring can be obtained at any drug-store. If not kept in stock they will order them at your request.

After adding the rennet and coloring, stir well to mix thoroughly. Then cover well with several thicknesses of woolen blanket, or a quilt will answer. Let stand until it becomes thick like clabbered milk, which will be in from forty to sixty minutes. Now take a long-bladed knife and cut the curd clear to the bottom, cut both ways about an inch apart; cover again, and let stand about ten minutes. Lay a piece of cheese-cloth over the clabber, and with a bowl clip off all the whey that you can. Then gently break up the curd to liberate more of the whey. The more gently it is handled, the less cream will be liberated, and the better the cheese.

Now dip off all the whey possible. Place a clean cheese-cloth in a market-basket; into this dip the curd. In the meantime heat two quarts of whey to ninety degrees and pour it slowly over the curd; work it out gently. If the curd is now squeaky when handled it is ready for the salt. If it does not squeak, heat another two quarts of whey and pour over as before. It is now ready for the salt, of which it requires much less in proportion than butter. Work gently with the hand until well mixed. It is now ready for the press. For the hoop you can use a gallon bucket with the bottom out, set this on a clean board, place a clean, wet cheese-cloth in the hoop, put in the mixed curd, fold the cheese-cloth smoothly as possible over the top, put on a round board that will fit loosely in the hoop. Place on the weights not too heavy at first, or you can make a lever to press it. Press dry as possible, leave in the press until evening, take out, trim off uneven edges, place on a clean, wet cheese-cloth, other side of cheese up, and put back into the press with all the weights on. Leave until the next morning. Do not bandage as it is more apt to mold. Place in a warm airy room, cover loosely with a clean cheese-cloth, taking care that there are no openings through which a cheese-fly could get.

Turn the cheese every day and rub well with a very little good sweet butter. This will prevent molding and will help the ripening process. It will be ready for use in four weeks; but will be better in six or eight.

August and September are good months in which to make several for late fall and winter use. MRS. C. S. B.

Dairy Queries

SINCE ordinary dairying is profitable, what results would more intensive dairying bring?

Are you breeding up the herd, or are you just letting it bump along "hit-or-miss" fashion?

What's the use in fooling along with a hard-milking cow, when easy milkers are to be obtained at no greater cost?

Do you keep any breachy cows around to give you all kinds of trouble, besides training the whole herd to follow them and be as breachy as they are?

Are your dairy profits satisfactory? If not, it is likely your own fault, and not the cows'. Look around and see if something isn't lacking in feed or management.

Do you value a cow according to the amount of milk she produces, or do you test the milk of each individual in the herd, and base her worth on that? The latter is the only safe and sure course.

When Bossie kicks, do you try to ascertain the cause, or do you fly into a passion and thump her with the milk-stool? Some men, reasonably intelligent on other points, never seem to learn that a cow seldom kicks without good reason.

Did you ever notice that most farmers sell their best cows and keep the poorer grades? Well, they do, and still these very fellows are so short-sighted that they fail to see why their neighbor, who reverses the above rule, is more successful in the dairy business than they.

Do you systematize the time and manner of milking? Regular milking hours; quick, thorough milking; each cow milked in regular rotation; the same milker handling the same cow at every milking—these are a few of the many little things which combine to aid materially in raising the profits of the dairy products, even more than the average dairyman thinks.

Did you ever notice how most fellows manage the bull? If he is allowed to run with the whole herd, how are you to know, accurately, the calving-time of each cow, and give her the special attention due her at this important period? Given free range of the pasture, the bull generally becomes breachy. Then, too, his liberty is almost sure to develop in him an unruly and vicious disposition, which finally grows to be dangerous. Confinement in a stall, or staking the animal out, will mark a sensible departure from the prevailing method of handling this important member of the dairy herd. The small extra labor involved, will be as nothing, when we consider how one may then keep an accurate record of all breeding, besides saving the time, labor and expense attached to keeping up fences after the animal, or chasing him around over the country when he breaks out. At the same time, caring for him in this manner will gradually train him, and so accustom him to being handled, that he will become as docile and tractable as the rest of the herd.

M. ALBERTUS COVERDELL.

The Holstein Cow—A Good Dairy Type.
Note the distended, tortuous milk vein and the large, well-placed udder

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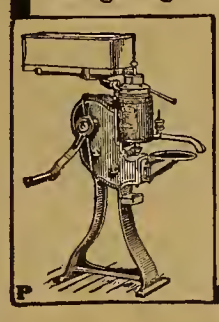

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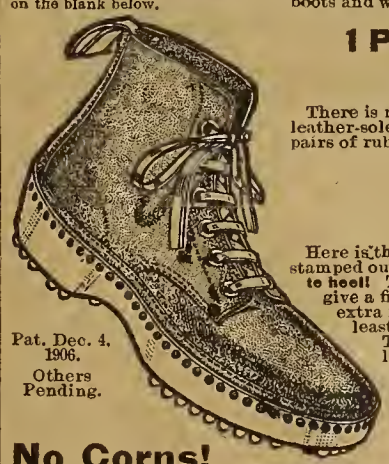

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Sizes, 5 to 12—6 inches, 9 inches, 12 inches and 16 inches High

Steel Shoes, 6 inches high, $2.50 a pair, are better than best all-leather $3.50 shoes.
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Steel Shoes, 12 inches high, $5.00 a pair, are better than best all-leather $6.00 shoes.
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Live Stock and Dairy

Selling by Live Weight

It remains one of the greatest anomalies in our system of agricultural trading, that, while farmers buy and sell practically all else in which they trade by weight or measure, they continue to deal in live stock by guesswork.

It may be argued that live stock cannot be dealt with in the same manner as other products of the farm, such as grain or butter, but though there may be some difference it is but a matter of degree and not of principle. The chief argument against selling by live weight is that there is so much to be taken into consideration besides mere weight, but then this is not peculiar to live stock. There are no fixed prices for wheat, butter, hay, or any other farm product, for, though quality counts just as much in these as in the case of cattle and sheep, no one for this reason would contend that they should be sold by guesswork. If quality applies to a bullock alive, its importance does not disappear when dead, but we find that sides of beef are sold by weight.

Custom dies hard, and probably this has much to do with the slow progress which the weigh scales make at the leading markets, but farmers are probably not so much to blame as butchers, who look with no favor on the weight basis of trading, and invariably oppose it to the utmost of their ability. The arguments sometimes used are more amusing than convincing—an example of these is an attempt to prejudice the best feeders against the system, by saying that a live weight basis would mean that the best quality cattle or sheep would make no more than the worst, so that good feeders would be the losers. This argument is likely to deceive no one. The weakness of the butcher's position is seen when he bargains with the farmer in the open market, for he argues that an animal does not weigh more than so and so, and will not dress to more than some other weight, just to beat down the price. He really buys by weight, though by estimated weight, taking also into consideration how, in his opinion, the animal will die. This last point is another stock argument used, and it is contended that it is not the live weight that matters, but the dead. Yet it would be idle to deny that a knowledge of the live weight is a big step towards the estimation of the dead weight.

The antagonism of butchers to live-weight dealing is not difficult to understand, and from their own point of view they are quite justified in taking the position they do. It is for the farmer to insist on the change. The butcher holds the stronger position, for he has the advantage not enjoyed by the farmer, of being able to check his estimates and so become skilful. On the other hand the farmer remains in blissful ignorance as to whether his estimate was near the mark or not.

It does not mean a loss of self-confidence to sell on a weight basis, as some maintain, for strangely enough the best judges of stock are generally the most favorable to the weigh scales. Indeed, there can be no doubt that its use would strengthen a man's judgment by enabling him to check his errors, and even apart from this, there is plenty of room for judgment when we come to estimating quality.

The weigh scales are hardly less useful in selling fat stock than in buying stores, and it is somewhat difficult to understand the comparatively slow progress made in this department. If more stores were weighed, buyers certainly would not pay a fat price per hundredweight for cattle, as must sometimes be done.

W. R. Gilbert.

Dairy Dottings

Be kind to the dairy cow. Beating and kicking excites and pains her, causing her to withhold the milk from your bucket.

If you milk before the sun goes down when flies are numerous, throw a covering of some kind over the cow to keep off the flies and she will be quiet.

Milk the cow regularly. Let her go over night or far into the day before milking and she will suffer from an overfilled udder, and soon fail perceptibly in the quantity of milk.

Keep up the fences so there will be no chance for the cow to become crippled by dragging herself through broken fences or to gorge herself on your own or your neighbor's crop.

Never allow the dog to run the cow off to the pasture in the morning or home at night. If one is too lazy to walk with her to and from pasture, he ought to get a pony and ride. Dogging a milker never pays, but is sure to cause a loss in the flow of milk.

Short summer pasture for the dairy cow means a short bank account from cream, milk and butter. The farmer should supplement the pasture in dry times with forage or ground feed. A patch of rape, cane or clover will come in nicely when the grass is short.

Give the dairy cow pure clean water to drink in the summer. Stagnant ponds furnish disease germs for milk and butter, and are very unhealthful drinking places for all kinds of animals. A windmill and tank will supply cool, germless water which will be appreciated by the dairy cow.

If the cow's teats become sore, do not run the risk of being kicked over, or of having a bucket of milk thrown into your face and over your clothing at milking time, but use a healing salve. Warm water and castile soap should be used to cleanse the teats, then apply a salve, after milking, made of two ounces of vaseline, one dram of oxide of zinc, and ten drops of carbolic acid. Keep this salve in a closed tin box where it is handy.

W. D. Neale.

Notes on the Horse

Curry the horses because they need it, not because it makes them look more stylish.

In feeding the colt, bear in mind that it is bone and muscle that it needs, and the nitrogenous foods, such as oats and bran, are what should be fed.

See that the mangers are kept sweet and clean. Sour and moldy grain will quickly get a horse "off his feed," and a lack of nervous energy soon follows.

If possible, have the horse stall at least six feet wide and nine feet long, so that the horse can turn around and can lie down comfortably. Have the floor nearly level.

Do not depend upon the young horses to do all the work on the farm. They should be worked moderately in order that they may obtain their full growth.

Wm. H. Underwood.

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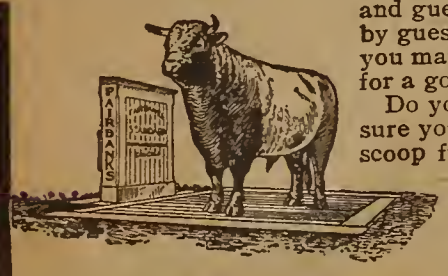

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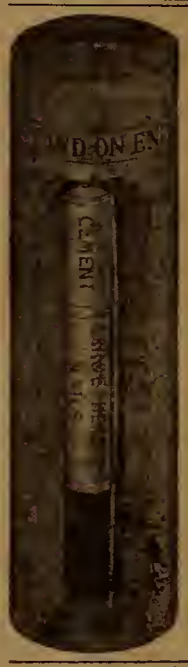

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Live Stock and Dairy

Culling the Flock

After the rush of the season's work is over it is a good time to cull the flock and remove from it all animals that are objectionable for breeding purposes. In any branch of the live-stock business an unproductive animal is always kept at a loss, and this is particularly true in sheep raising. Where pure-bred sheep are maintained, one of the first points to be sought after is uniformity of type among the breeding ewes.

In every flock there will always be found a few sheep which seem to be almost entirely different from the rest, and these are bound to beget lambs of the same stamp. No matter how productive such ewes may be it is generally best to get rid of them as soon as possible. One of the first things which impresses a prospective buyer is a nice, even lot of sheep.

Another matter of very much importance in the breeding flock is constitution. A ewe should never be tolerated in the flock that is narrow in the chest, sluggish in her movements or possessed of other characteristics which indicate a lack of vigor. A weak lamb will, almost invariably, be produced by a weak ewe and there is no legitimate place for weaklings of any kind in live-stock breeding.

In deciding whether or not a ewe is constitutionally weak, some attention must be paid to her record during the previous season. It should be borne in mind that thin flesh is not always an indication of weakness. A ewe may have raised two big lambs during the summer, and such a one cannot be expected to be fat and sleek in the fall. In fact, if she has been able to give so much nourishment to the lambs that her flesh is very much reduced, it is about the best evidence possible to prove that she should be retained.

A ewe may appear fat and lusty in the fall owing to the fact that she has raised no lamb during the summer, or that she has not properly fed the lamb she was supposed to raise. Here, again, it is a matter for the breeder's judgment to decide whether or not she should be disposed of. All of this goes to show the importance of keeping a close record on the productiveness of the individual members of the breeding flock.

No matter how productive a ewe may be, it should be no cause for keeping her until she is too old for service. When a number of ewes begin to show signs of age they should be separated from the remainder of the flock and fattened on ground corn or meal, and, unless they are extremely poor when entering the fattening lot, they can soon be disposed of at a fair price.

A diseased sheep should not be allowed to remain in the flock. If the animal is a valuable one it can be removed and given special treatment, but if it be of little value it should be sacrificed at once. There is nothing that injures the appearance of a flock more than a few sickly-looking sheep which have apparently but a few days to live, and unless they can be quickly cured there is absolutely no profit in keeping them.

Wm. H. Underwood.

Fattening and Marketing Hogs

After the pigs have been well prepared for the fattening period by a liberal feeding of grasses and forage crops they are in an ideal condition to be put into the fattening pens and finished for market.

There is a wide diversity of opinion among successful hog growers and feeders regarding the most profitable age and weight at which to fatten and market the pigs and I realize that I am treading on dangerous ground when I advocate feeding the pigs until they weigh from three hundred to four hundred pounds at market time, but after considering every side of the matter I am convinced that there is more profit in allowing the pigs to run on forage crops until they become big boned, hard fellows and along in September put them into the fattening pens and feed them corn and water until they are ready to go onto the market in January or February weighing the above mentioned weights. This practice I would not recommend to the grower of fancy pork or the feeder who is depending largely upon dairy by-products and other farm wastes to enter into the economical growth of his pigs, but to the practical feeder of market hogs who lives in the corn-belt states where such crops as alfalfa, corn and other grain and forage crops are grown in abundance.

There has been a change in the market demands since the fancy bacon craze struck us, and it is nothing unusual to see a car-load of good-sized pigs bring the very top market price.

The time has not arrived when good quality, thick and firm pork and fair sized, well-marbled hams will not sell for as much as the small, undersized cat hams of the so-called bacon hogs. It is not my purpose to discourage bacon growers from the East and Northern states, but rather to show that the production of bacon is not the most profitable class of pork for the practical hog feeders of the middle Western states.

Fattening Houses

A very good plan to follow in constructing a house for feeding pigs is to build it eight feet wide and long enough to accommodate the number of pigs that are being fattened at one time. A house of this kind will afford sleeping room for all that can get to the trough and drink, but there should be an outside apartment with the floor the same size as the floor in the hog-house, and this may be used as a feeding floor and should be kept clean at all times and all of the droppings swept up and kept for manure.

The cheapest material in the end for the floors in the hog-house will be cement. The floor of the outside house or apartment should be about one foot or six inches below that of the house floor to insure good drainage and dry sleeping quarters. Portland cement will be the best for the floor and there should be a good strong surface coat as the pigs-feet are very sharp and will break through unless the concrete is well made. There should be movable partitions so that the house may be divided to suit the occasion and to prevent the pigs from piling up during extremely cold weather. When put into fattening pens better results will come if we do not allow too many in a pen. Build the house with the floor sloping about one inch to one side and with a shed roof and double board the sides with building paper between to prevent the wind from blowing in and making a draft. The rear of the house will not need to be more than six feet high. This will afford plenty of room for a tall man to work inside while cleaning out or when the pigs require some special care.

After the pigs are put into the fattening pens and become used to the change of food, they should be fed all that they will consume and the quicker they are ready for market the more profit they will make for their owner.

At all times the greatest cleanliness should be observed in the care and feeding of the pigs. After they are through eating clean off the feeding platform or floor and at all times provide them with all of the pure fresh water that they want. Corn and water are the chief fattening food, although a few roots once a week will often give them a keen appetite and regulate their bowels if they are affected by constipation. Understand I do not mean corn and water for feeding shoats, but for feeding hogs that will go to market weighing from three to four hundred pounds. Young pigs that are being fed for pig pork should have oats or middlings with their corn in order to promote their growth at the same time they are being fattened for market.

Marketing

The proper time to sell fat hogs is usually when they are ready for the butcher and it will seldom pay the feeder to wait until the price advances. There is a large expense connected with holding fat hogs for an advance in the market.

When hogs are being fed in car-load lots they should be loaded into wagons and hauled to the cars instead of being driven. They should be loaded in uniform bunches and assorted as to size and condition. It is the even-fleshed, uniform bunches that top the market and a few runts will knock off more from the sale price of the whole lot than they will bring themselves. Either dispose of them in a separate lot or keep them away from the better fitted hogs.

There are men who make good money feeding hogs, but there are more who would lose money if they figured their grain at the market price and their time in caring for the hogs. There is no sentiment in the hog feeding business and few men will choose a bunch of hogs for companions unless the business is profitable. The men who have made money are the ones who have stayed with the business through thick and thin. There is money in the business if properly managed.

W. Milton Kelly.

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Farm Notes

Hold Back the Harsh Word

In a recent article Mr. Walter S. Tomlinson, a successful Ohio farmer and a prominent writer upon agricultural subjects, lets fall a significant remark with respect to hired help. In telling of the loss of a hundred dollars' worth of hogs because two boys forgot to obey orders, Mr. Tomlinson states that having met with the loss it would have been no gain for him to have become angry and disagreeable, to the discomfort of himself and everybody else on the place, and that he simply went ahead with the best of what was left. He then ventures an excuse for the boys, and reminds his readers that the hired men will, like their employers, become tired and forgetful, and that it is wrong for the latter to hurt the feelings of the former and disturb the peace of the neighborhood to no purpose.

This sentiment, if it were possible, should be written in gold and displayed before the eyes of every man and woman for whom others labor. At the best, it is not an easy thing to be constantly obliged to do the bidding of somebody else. The ideal of labor is for each to work for himself. This is impossible at the present, and perhaps it will always be so. For more reasons than one, and sometimes unjust ones, competent and ambitious individuals are compelled to fulfil the orders of others, many times the orders of others inferior in every way, except in the possession of property.

The suffering that these necessities entail upon sensitive subordinates is beyond comprehension. There is no danger or pain or misfortune to which the employer is subject, that does not equally confront the servant, and, in addition, the latter is forced to endure everything involved in servitude. And it is no small thing.

If property were altogether in the hands of honorable and considerate persons the situations of subordinates would not be so unhappy. Unfortunately the proprietor of the establishment, the owner of the farm or the head of the household is many times a selfish and heedless person, who not only takes no pains to ease the lot of the employee, but actually finds a mean pleasure in harassing the servant in every way.

Sometimes there is in men a spirit of cruelty that prompts them to hurt others for the very pleasure of witnessing their pain. In a less enlightened and orderly age these men would be agents of torture for tyrants. Now they feast their fangs upon the helplessness of the economically dependent. Many times men are afflicted with a suspicion that their employees are in a good way to idleness and insubordination, unless they are constantly roused from whatever course or contemplation in which they may be found. Others are inwardly nervous and ill at ease, and their restlessness impels them to thoughtless and frequently unconscious persecution of those subject to them. Again some employers are so self-willed and officious that they resent independence or even self-reliance on the part of those whom they employ, preferring to do all the directing and all the thinking about the place. The latter is about as disagreeable variety of employer as can be found. Still further, there are men and women who mean well and are honest, but who have formed the habit of complaint from so many years of practice that under no condition can they bring themselves to offer a commendation or even refrain from objection. These and other causes combine to make employers in many cases disagreeable and unjust in their treatment of their employees.

Now, a few practical considerations suggest themselves. In the first place, if you are an employee yourself, do not, if it is possible to prevent it, allow any one to rob you, even for one day, of your individuality, your self-reliance, or your personal rights. The habit of yielding weakly to encroachments grows upon one, and it ought to be resisted from the first. Many times a dictatorial and insolent employer deliberately tries the spirit of a new subordinate at the beginning of his service, and the display of a self-reliant and self-respecting nature then will be of great advantage for the future. Naturally enough the hired laborer often finds himself in so precarious a general condition that he is obliged to put up with what he can get. In such a case he will have to content himself until the arrival of better times.

In the second place, if you are an employee, remember that you have genuine obligations towards your employer, and that you owe him obedience in your bargained service. While conditions to which I have referred exist, there are many hirers of labor who are fair and square in their dealings, and even the unworthy ones are frequently willing to accord a useful worker an unusual amount of consideration. I once heard a farm hand say that his employer had stated that a harvest hand's labor ought to be worth fifty dollars a month to be profitable. As the farmer was paying possibly thirty dollars in all for the man's labor, in addition to furnishing the capital, the profit of twenty dollars did not seem exorbitant. The young man expressed himself, however, as being entirely indifferent as to whether the farmer made any profit or not, so long as he should receive his wages. Such a spirit is far from commendable, and equally far from profitable.

In the third place, if you are an employee, and have any ambition or prospect of yourself becoming a hirer of others, prepare to carry into the new life when it shall have come a sympathetic memory of the earlier one. It will beyond doubt smooth over many a rough place, make you better fitted for your responsibilities, and contribute to the comfort and the effectiveness of your assistants.

And, in the last place, if you are an employer, and your eye falls upon this article, and particularly upon the quoted sentiment at its beginning, reflect honestly upon your own attitude toward those who serve you, and, if you are not treating them with the proper spirit of fairness and reasonable allowance, change your course, and you will find that the change will add to your own peace of mind, increase the contentment of your helpers and indirectly put money into your pocket, in all probability, though the latter prospect should not furnish the chief incentive. The ambition to be a faithful helper is a worthy one, and the career of a fair-minded employer is a credit to society, an aid to prosperity, and an honorable factor in general life.

John A. Simpson.

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Farm Notes

Disposing of Worn-Out Machinery

When a machine wears out or is laid aside for a more modern and practical one of its kind, this question confronts the farmer: What shall I do with the old one?

Unless the old machine has been traded in on the new, the question is invariably answered by pulling it behind some building or in some fence corner, where it serves as an eye-sore to the neatness of the farm and promotes the growth of weeds about it by making it difficult to cut them. It is perhaps finally disposed of through the medium of the so-called "ragman" at about one half its market value.

A worn-out machine is usually of more value to a farmer than the meager sum received through its disposal as old junk, if for nothing more than the bolts it contains.

When one of our farming implements is placed on the "retired list," it shares in furnishing us spare-time employment. It is taken apart, the bolts saved, the wooden parts, if any, consigned to the board-pile and the remaining iron portion to the junk-pile. This latter is a special place prepared to receive all refuse articles of iron—horseshoes, plowshares, etc—which are so wont to accumulate on a farm. It is so located that it interferes but very little with the looks of the premises. It is remarkable, too, how often this junk-pile becomes the source of material for repair, etc. When conditions justify, the pile is gone over and all articles that it is evident can be of no future use are hauled to market. A few years ago we marketed a load of junk, and as our town contained two dealers, we not only received the benefit of selling direct to the shippers, but also of competition. The price we received for the iron paid us highly for marketing it.

The value of the bolts and nuts afforded by most farm implements is usually underestimated by the farmer when considering the worth of a worn-out machine. The fact that all machines, when used, are prone to wear out or break down, and that bolts form one of the great essentials in the construction of modern machinery, stands as proof that a good supply of bolts contributes largely to the source of repairs for farm implements. We have gathered together quite a supply, and for convenience, the bolts and nuts are placed in four cases, the size of the bolt determining the case it goes in. The washers are removed from the bolts and placed in a small box by themselves. By this method a certain sized bolt can be found much easier and quicker than where bolts of all sizes are heaped together in one vessel.

Though we have occasionally been compelled to purchase bolts, yet this has been a great deal less frequent than would otherwise have been the case.

P. C. Grose.

Caring for the Harness

One of the places in farm management where there is frequently a leak is in the lack of care the harness receives. At the present high prices of leather it is impossible to get good harness without considerable outlay, and many farmers do not stop to think just how much money they have invested in the harness required for one or two teams, a single work-horse, and perhaps a driving horse or two.

It should be borne in mind that water and mud have a very injurious effect on harness, and, in a lesser degree, so does dust. Before saying anything about cleaning harness, it may perhaps be well to say that every farmer should have in his barn a harness-room sufficiently large so that the harness can be hung out in various parts to dry when necessary. The custom of hanging it on hooks or stakes in the stable, which is in vogue on many farms, is a very bad one, and when followed causes the harness to deteriorate rapidly.

It is not necessary to clean harness thoroughly every time it is used if a proper place to keep it is provided, but it will last much longer if, after being removed from the horse, the dust and dirt are removed with a good stiff brush. If it has become muddy or badly soiled with sweat, it should first be brushed and then sponged off until the surface is free from dirt, after which it may be rubbed with a cloth which has been moistened by a little neat's-foot oil.

For the good of the harness it should be given a general cleaning and oiling about once in three months. To do this, all the straps should be unbuckled and laid out straight on a wide board or table. All the parts should be well brushed, to remove all the dirt that will come off without washing, and care should be taken to see that no dust is left around the stitching.

If the stitching is broken or any repairs are found to be necessary, they should be attended to before going further in the work of cleaning. When the harness has been thoroughly cleaned with the brush, wash all the plain leather straps in tepid water, well charged with some good harness-soap; then rinse in cold water, wipe off with chamois, and hang all the parts up separately to surface dry. In washing, it is not best to allow the straps to remain in water longer than is absolutely necessary, as it will injure the stitching and will open the edges where the leather has been doubled. It will not be necessary to put all the leather in the water at once; wash one piece and dry it as directed, and then take another. Patent and enameled leather should not be put into the water, but should be simply rubbed well with a cloth moistened in tepid water.

If one wishes to do a particularly good job of oiling, one that will last for three months under the most trying conditions, lay out each strap on a board as soon as the surface has become dry, and apply a liberal coating of neat's-foot oil; then apply a coat of beef-tallow warmed enough to go on with a soft brush; then lay all the straps out on a board, and allow them to dry thoroughly—twenty-four hours is not too long. If there are any red spots visible, or if it is desired to black the harness, now is the time to do it. For red spots touch with some vinegar black. To black it throughout, any standard make of harness black may be used.

When thoroughly dry, remove with a rag whatever surface grease may be apparent, and if a nice polish is desired, rub well with an old piece of silk, such as most households can furnish. Before buckling the straps, apply with a spring-bottom oil-can a little castor-oil around the buckles, rings, etc., and on the bolts and base of mountings. A very little oil applied at these points will prevent rust and keep the leather from becoming hard.

The patent and enameled parts on the driving harness should never be greased with anything but linseed-oil, and no more of that than can be applied on a slightly greased cloth. If the polish on these parts has become dim, it may be brightened by rubbing with beeswax and then with a piece of old silk.

Wm. H. Underwood.

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FARM AND FIRESIDE

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A New Kind of Rural Schools

NO RECOMMENDATION of the Country Life Commission has borne more fruit in discussion in the agricultural press, than its statement that the country needs "a new kind of rural schools." A rather radical utterance, that! But it need not be taken in bad part by the farmers, for it is pretty well recognized that we need different kinds of schools almost everywhere. Instead of becoming offended about it, the agricultural population of the United States may well ask themselves two questions. First—do we really need a different kind of schools in the farming districts? And, if so, what sort of schools do we need?

* * *

Any system of schooling which is not directed to the end of fitting children for their life-work is bad. It is a cumberer of the ground, and unfruitful tree which should be cut down and cast into the furnace. Our schools teach many things which lie at the base of all life-work. The elementary education which the children of civilized people must have, the country schools give. So far, so good. The country school stands as one of the means by which Wisdom is justified of her children. It does give the reading, writing and arithmetic and some of their frills which intelligent folks must have in these days.

* * *

But is the instruction in rural schools based upon the presumption that the children of farmers will become farmers in their turn? Farming is one of the most complex, most difficult, most scientific of vocations. It demands that the boy and girl destined for its successful carrying on be trained for it from infancy. A course of study which is the proper training for a stenographer, a salesman, a book-keeper, a doctor or a lawyer, is likely to unfit the child for farming by annihilating in him the desire to farm. Such a curriculum fails to uncover the opportunities, the beauties, the rewards, or the problems and burdens of the farmer's life.

* * *

Isn't it true that our school traditions are too many of them inheritances through literature from a state of society different from that for which we yearn, in which the plowman who "homeward plods his weary way" is a creature put in the picture for the purpose of effect, but a member of the lower orders? The squire and the lord who owned land but did not work, the gentry, and the leisure classes, pervade the literature of our very language, and are constantly insinuating themselves into our conceptions of life as the classes to be envied, and farming and farm labor tend to arrange themselves among the things to be escaped from, and from which we are freed by "success." People so educated flock to cities and congest the labor-market. They crowd into professions and make the law and medicine more precarious than hod-carrying. They leave the farm as soon as possible, in the hands of tenants, and live in towns and cities in the ranks of those hybrid creatures "the retired farmers." They do not respect country life. They do not get out of it all they might. They accept it as hard and uncongenial, and stay in it only as long as they have to do so.

* * *

The schools of the rural districts are the creation of the farmers—those who read this paper. They have it in their power to make them what they choose. FARM AND FIRESIDE would like to hear from its readers on this vital matter of country schools. It would like to have the questions raised in this editorial answered just as these readers see the answer. It would like to know whether its readers are satisfied with the schools as they are; whether they think the schools are the best that might be had for farm girls and boys; whether pride in the farmer's life and appreciation of its beauties are things which should be taught in the schools of the farming districts, just as pride in teaching and love for it are taught in the normal schools; whether understanding of scientific farming ought to be taught in the country schools just as scientific metal-working is taught in the schools for machinists.

* * *

And whether, after looking it over, up one side and down the other, we haven't raised the biggest and most difficult problem of all, and the one most worthy of careful and prayerful study!

Possibilities in Sweet Clover

WE PUBLISH in this issue an article on sweet clover (melilotus) which seems to indicate that in its ordinary, unimproved state, this hardy and vigorous legume is a valuable pasture and hay plant. That it will inoculate the soil for alfalfa is well known. Its roots bear the nitrogen nodules plentifully, and it is a fine crop for restoring fertility, as well as for humus. Its vigorous growth under rather arid conditions, and its capacity to grow in alkaline lands are vouched for and undoubted. Other observers than our contributor have used it for all the purposes of a leguminous plant with success. The agricultural press is giving more and more attention to it.

The possibilities of this wayside weed would seem great enough to demand the serious attention of experimenters on a larger scale than formerly. If our correspondent's experience is found a safe guide, the bitter principle in sweet clover which keeps it from being eaten where other herbage is to be found, is no hindrance to its use for pasture or hay when the animals are confined to it; and its feeding value is probably equal to alfalfa, if the stock will eat it freely.

There would seem to be nothing in the way of the development by artificial selection of a strain of sweet clover in which the bitter taste should be bred out of it. Some experimenter, by propagating from the plants with the least of the bitter taste—as determined by animals themselves, or by the palate of the experimenter—will eventually develop a sweet clover quite as palatable as any of the other legumes. Luther Burbank has done many more-brilliant things. And it would seem that such a strain would be of the highest usefulness in many places where alfalfa has not been successful, and might be a strong competitor everywhere of that wonderful plant, which it so closely resembles. We hope to hear more of the experiences of our readers with melilotus.

Ballinger Sustained

AT THIS writing, the country seems under the impression that in the so-called Pinchot-Ballinger controversy, the President is with Ballinger and against Pinchot. The celebrated Cunningham coal-land case, concerning coal-lands in Alaska, has been before the Department of the Interior for years. It is said to involve title to lands worth not millions, but actually billions. Rightly or wrongly, Mr. Ballinger has always been thought favorable to the claimants whose claims have been held up under charges of fraudulent entry. He was attorney for them before he became Secretary of the Interior, and he is accused of having tried to obtain favorable action with reference to them while he was in the service of the Interior Department during Garfield's term.

Chief Forester Pinchot got into the case by reason of the fact that the lands are embraced in a forest reserve in Alaska. He has a consistent record of never failing to use his official power in the interests of protecting the public domain against fraud—a record to which he has been true in this case also.

An inspector named Glavis, in the employ of the Department of the Interior, has been engaged in looking into the records of these entries, and has pronounced the frauds palpable and enormous. Mr. Ballinger did not sustain Glavis. Glavis went over Mr. Ballinger's head, and the whole matter went to the President. Mr. Taft, about the middle of September, sustained Mr. Ballinger, and Glavis was discharged by wire. Mr. Pinchot insists that there is no Ballinger-Pinchot controversy, and that he will not resign. Glavis publishes an open letter to the President, protesting against the ruling, and promising that he will make public the evidence of the Alaskan frauds. At this writing President Taft is on his trip swinging around the circle, and has promised a talk on the "conservation" policy. An important monthly magazine promises startling disclosures with relation to the stealing of water-power sites—and there you are. The situation seems sure to clear up within a few weeks.

Our Enemy the Rat

IF ALL the armies and navies of the world could be set at rat killing, it would justify the world's armaments—if they succeeded in killing all the rats. The tale of ruin and wreck done by rats is a horrible and startling one. Some say that the rat is the most destructive of all mammals. This is probably true. It may even be the most destructive of all animals. Its closest competitors in this struggle for evil eminence would be the mosquito and the fly.

An astounding account comes by way of Paris of the close call London had last year from a visitation of that dread pestilence, bubonic plague—that disease which in mediæval times laid the world waste and was called the Black Plague.

In August of last year, it appears, there were found under the London docks, where rats come in ships, several dead rats. In mediæval times nobody would have paid any attention to them; but in 1908, they were examined and found to have died of the plague. The fearful word was passed around among those concerned, and all the rat haunts searched. More than two hundred plague-killed rats were found, and nearly seventy living rats suffering from the pestilence. A campaign was begun and 61,521 rats were killed in London. Apparently the plague was halted, but who knows?

Who knows what other diseases beside the plague the sewer-haunting, filth-loving brutes may bring to your house or barn? How can you feel confidence in the freedom of your farm or city dwelling from contagion, so long as the rat moves like a brown demon from cess pool to vault, from carcass to attic? Make your buildings rat-proof.

No Money in Fooling With Flowers

IT DOESN'T pay to plant flowers on the farm.

There isn't a cent in it for the farmer. Not a cent. There's no market for the flowers the average farmer can grow, and they occupy land, and if they are to be a real success, they must have some labor bestowed upon them. And labor, on the farm, means money.

Of course, the women and children kind of like them, and on Sunday, when the spring rains have washed things clean, a stately file of flower-de-luce, or a platoon of peonies, or a tangle of morning-glory—even if it does become a pest at times—or a cone of flaming cypress-vine, surrounded with four-o'clocks and coreopsis and a border of portulaca—mother used to call it "rose moss" you know—they certainly do brighten things up, even if they do not pay.

The boy or girl gone to the city may forget the modern granary, but remembers the dog-tooth violet and the lily-of-the-valley when the snow melts from the pavement, and longs for the bleeding-heart and snowball and bridal-wreath and lilac of the old farm, far more than for the silo and the cement floor of the barn.

And if anything will bring back to the old home the wandering one, it is apt to be the memory of the dear old flowers—larkspur and tiger-lily and rose and lily and violet and pink—rather than the recollection of the waving grain or the bursting mow. Perhaps, after all, the man farming for money, might do well to take an hour off with the women and children, and spend it foolishly over the flowers. Now is a good time to plan for next summer, too.

Long-Lived Inoculation

A CORRESPONDENT of an exchange states that his alfalfa field has a spot in it rich with nodules and growing a heavy crop, owing to inoculation by an attempt to grow the same crop there in 1873. This seems like a long time. Can any of our readers tell of similar instances of long-lived inoculation?

In the Public Eye

What I Saw and Heard and Thought in Washington

By Alfred Henry Lewis

Ex-Senator Platt is threatening mankind with his "personal memoirs" He is even now seated opposite a stenographer engaged in the congenial task of talking about himself. Such a work as the personal recollections of Mr. Platt, ought to add to the gaiety of nations, and folk who dislike to be dreary, all hope he'll soon get into print.

The old ex-senator has in mind, he explains, the setting forth in great elaboration how politically important he himself was back in the early eighties, when Mr. Conkling fought Mr. Garfield and—taking him, Mr. Platt, with him—resigned from the Senate as a cap-sheaf to that battle.

Mr. Platt would be but wasting his aged energies were he to expand mightily upon that incident. The world very well understands it as it is. Mr. Conkling was the big chief, swatting the ball of politics about the party links. Mr. Platt was his caddy. Or Mr. Conkling was the great swell or beau of the party, and Mr. Platt was his valet. Where Mr. Conkling went, Mr. Platt—then somewhere in his political teens—went also. He had to. Wherefore, when Mr. Conkling, in a superb pout left the Senate, and all under a mistaken impression that the country would collapse without him, Mr. Platt was bound to follow him as tail follows kite. That is all there ever was to tell. And should Mr. Platt enlarge upon it, he would only prove how much less thrilling as a subject a man is to others than to himself.

My own advice to Mr. Platt at this pinch—and I speak professionally—is to do his great stunt in and about the name of Mr. Roosevelt. Mr. Platt, than any other, had more to do with making the political fortunes of Mr. Roosevelt, while bitterly employed in trying to pull him down. Mr. Roosevelt burst into republican politics back in the middle eighties, just after he'd left school. He went from legislature to Civil Service, to Police, to Assistant Secretary of the Navy, to war at the head of a regiment, to Governor, to Vice-President, to President. In all of these positions, honest, brave, unmanageable, Mr. Roosevelt was the thorn in the side of Mr. Platt.

Mr. Platt, active as the head of his party in New York, sought from time to time to discipline the ebullient Mr. Roosevelt. He reprimanded, rebuked, cautioned, threatened. It was of no avail. Mr. Platt might as well have tried to put down an Indian uprising with a resolution of the Board of Trade. The case was hopeless. You couldn't "manage" Mr. Roosevelt; and because he had an inborn knack of—to use the New York East Side language—"keeping solid with the gang," you couldn't beat him.

To get rid of Mr. Roosevelt's pernicious assiduities, Mr. Platt was wont to put him out of one place by putting him into another. It was the best he could do. In the merest name of getting rid of him, Mr. Platt was ever see-sawingly busy about the Roosevelt bits. He backed him out of the Civil Service, out of the Police Commission, out of the Navy Department. And all the time, against his wish and will, Mr. Platt was backing Mr. Roosevelt up hill. Lastly, he backed him out of the Governorship into the Vice-Presidency. And the Presidency followed.

Mr. Platt, were he to stick to the Roosevelt angle, could make his "recollections," both interesting and instructive. He could show how he, himself, had made a President without wanting to make one; how he was forever attempting assassination, but committing suicide.

* * *

Diogenes should have been on the job during the recent tariff fight; he wouldn't have carried his lantern in vain. One honest man, at least, was developed in the House. His name was Clark, not Champ. And he was lodged among the Democrats and came from Florida. He declared he would vote for the Payne Bill if it carried what tariff provisions were demanded by the people of his district, even though it ran down and crippled the interests of every other individual in the country.

This proud, high and exceedingly honest announcement by the man of the Everglades was met with scoff and hiss from the Democratic side. Even the Republicans were by no means sure of it as doctrine.

And yet what Mr. Clark openly announced as his own position was, when you went below the surface, that of every man, so far discoverable, on either side. Not one appeared for the people. There wasn't a word lisped anywhere of honest revenue sort. It was from the beginning but a wrangle and a scramble between the "interests" as to which should thrust its larcenous hand most deeply into the pockets of the consumer.

Not a man came forward, unless it were Mr. Clayton, of Alabama, who evinced a genius broad enough, or deep enough, to adorn a city council. With their little hearts and little hopes, they never soar above a thought of reëlection, as I've already told you, they legislate for a neighborhood, never for a nation.

The presence of many a member is to me a great mystery. Why should a public mustard-seed desire to come to Congress, where upon every occasion he proves only his infinitesimal sort? For myself, I like Mr. Clark, of Florida, better than I like his fellow mustard-seeds. He, at least, is frankly honest. Being a mustard-seed, he does not give himself the manners of a mountain. Conscious that legislatively he is a pinhead, he manfully admits it, and as a pinhead takes his honest stand. This is more than the other pinheads dare do. It requires courage to be a pinhead, and at least Pinhead Clark may be congratulated for his courage.

* * *

Time and again the Interstate Commerce Commission has asked Congress for power to take an actual valuation of all railroad property. Time and again Congress has failed to grant that power. Now the commission avers that it has the power, and has had it all the time, and purposes—without waiting for Congress—to get busy and take said valuation.

No, nothing in all chance will come of it. Nothing ever comes of any commission. Commissions are but time-wasters and meat-wasters and cumberers of the earth. In the face of the Interstate Commerce Commission itself, the trusts and the railroads are as big criminals as ever.

Four years ago the Wisconsin railroads admitted that their rebatings totaled full seven million dollars. What should they be now? What should they total for the whole country, if seven million dollars be the four-year-old rebate story of one of the smaller railroad states? Verily, in some of its practical expressions, "government of the people, for the people, by the people," is getting to be a joke!

* * *

Attorney-General Wickersham believes in government by secrecy. Also, the same might be said of every hen-roost fox and weasel sucking eggs between the oceans. Mr. Wickersham has padlocked the lips of every man in the Department of Justice. Not one of them is to give a word of news to the papers.

For myself, I suspect a government official who skulks and hides and loses his voice. After twenty years' experience, I am prepared to say that I never knew one who did who wasn't either rogue or fool. There are, as has been said before, but two keys to go with government. One is to the treasury, the other to the jail. When Mr. Wickersham locks up the Department of Justice, it is because he is afraid to have the public witness his official housekeeping.

Drusus, the consul, said to his architect: "Build my house so that any Roman may see every act of my life." Drusus was not a Wickersham.

Mr. Wickersham should look out. Concealment doesn't mean safety, and more men have died from too much silence than from too much speech.

* * *

Those divers pre-presidential banquets, treading upon the gustatory heels of one another in a very Lucullian lock-step of good cheer, might have led the uninformed to think that Mr. Taft was a great feeder—a giant Blunderbore at the festal board, devouring joints, crunching marrow-bones.

Nothing of the sort.

In the face of stories touching Georgia barbecues, in the teeth of tales concerning forty wild tumultuous possums carved and eaten at one feast, I will give the truth. Mr. Taft dines lightly and with the jealous nicety of any bird. He breakfasts upon coffee and a roll. His lunch consists of one apple. These yarns of deep exhaustless dinners are figments and merest fallacies.

Speaking of lunch, that single apple bill of fare has worked a radical change in midday matters at the White House. Mr. Roosevelt's long suit socially was his lunches. It was a chill and meager day when he sat down with fewer than a lunching dozen. This has been all wiped out, made to disappear. Mr. Taft battens upon his single noonday apple in solitary meditation.

* * *

Mr. Beveridge is one of the star orators of Congress and makes a great impression. As a Senate Cicero he has received so many bouquets that he cares nothing about them. Even champagne, when drunk to excess, palls upon the taste.

Two gentlemen were discussing the eloquence of Mr. Beveridge.

"You ought to hear him," said one.

"I did hear him," replied the other. "I listened to him speak for two hours."

"What was he talking about?"

"I don't know; he didn't say."

Back Talk to Lewis

Letters From Readers

Editor of Farm and Fireside:—

I have read with much pleasure and interest Alfred Henry Lewis' page ever since he began writing for you, and have also read the "Back Talk" to him. This is certainly an interesting department. One thing I notice, there are a number of your readers who are shocked at the idea of a farm paper allowing political discussion in its columns. They seem to regard this as almost sacrilegious. Of course, this is grounded in some people by an unreasonable prejudice, and the politician is wonderfully afraid that politics will contaminate and ruin both the religious and the agricultural press. If the politics and the political methods of the present day are so corrupt that the religious and agricultural press cannot speak of them without danger of losing influence, it is time that the public conscience was aroused. We cannot trust the partisan press to enlighten the public on political matters. As some of them at least are corrupted, others are biased by political prejudice, and so we must look to a more reliable source of information, which naturally leads the farmer to depend upon his farm paper to keep him posted upon what his elected servants, the officers, are doing, and really we cannot afford to do without the unbiased comment of the agricultural press upon public affairs.

West Virginia. A. J. Legg.

Editor of Farm and Fireside:—

I have read with interest Mr. Lewis' articles on politics, and say let the good work go on. It may be the means of opening the eyes of a good many blind partisans. Your correspondent from New York says "the farmer will not organize his giant strength. He is waiting to be coddled." Well, as to the first, not many years ago his giant strength was organized in this state, in Kansas, in Iowa and several other states. No sooner was this accomplished than the machine leaders of both old parties banded themselves together to crush out the farmers' strength, insinuating at least that he had no business in politics only to vote, and should be content to remain in the place where the Almighty had put him. Their schemes were concocted in the same political hotbed, and they worked as a unit and no stone was left unturned to accomplish their object. Every possible opportunity was seized upon to besmirch, ridicule and vilify the farmer legislature. The "State Journal" characterizing the members as "a lot of hogs in a nice parlor." And this was kept up year after year, until many became discouraged, and thinking more of "my party" than they did of principle, imitated the example of "the dog and sow" mentioned in the scripture.

As to the second, "waiting to be coddled." It seems to me if there is a farmer so credulous and deluded as to be waiting for the government to coddle him or his interest, I think he will still be waiting when Gabriel blows his horn. It seems to be perfectly right and proper for the government to coddle the big industries, corporations and millionaires, and throw around them its arm of protection and say to the outside world "keep off, touch not my favored ones, and do them no harm." With such men as Mr. Cannon, Mr. Aldrich, Mr. Payne in control of both branches of Congress, I fail to see even a ray of hope for any legislation having for its object tariff reform or any other reform.

A Nebraska Subscriber.

The Stolen Necklace

By E. M. Jameson

JABEZ CREWKERNE turned in his chair and surveyed his rebellious daughter. His frown had been known to make even the heads of departments tremble, but Dorothy Crewkerne, under a soft and feminine exterior, owned a good share of her father's dominating spirit.

She stood in the doorway, looking back at him in her laughing, impertinent way, oblivious to frowns and disapproval. As a rule, she twisted the hard-headed business man round her little finger; but to-day she had tried him beyond patience, and his wrath was not to be assuaged by any womanly wiles.

His rough-hewn face was set like granite, and the hand that gripped the arm of his chair looked white and strained about the knuckles.

She, thinking there was nothing more to be said, turned to go.

But it was not Crewkerne's way to put off an evil hour. By trampling upon other people's desires and schemes he had arrived at his present position as one of the world's princes of finance.

He was essentially a hard, unscrupulous man, with one idol—his daughter. For her, he told himself, he had amassed wealth that she might have everything that makes life pleasant; he had lavished upon her riches and jewels and a certain stern adulation which he called love.

It said something for Dorothy's nature that she was, so far, unspoiled. It was only of late, since love had come, that her father realized the unsuspected grain of determination in the girl's character. He had other plans for her, and the matter must be made clear without delay. He struck his hand on the table violently as she turned to go.

"Come here," he thundered, scowling at her under his bushy brows, "it is time we had an understanding."

Dorothy hesitated in the doorway. The skirt of her evening gown was gathered up ready for departure. She let it fall in all its filmy length upon the carpet and darted a surprised glance at him. But she did not move an inch nearer.

"Sit down," he commanded, in a tone usually kept for his underlings. He had never hitherto employed it towards his daughter, and she resented it. But she came nearer and sat down at the other side of the table, glancing at the clock as she did so.

"The horses are standing and will take cold," she said.

"Let them," replied Jabez, grimly. "They can be replaced if they die of it."

Dorothy realized that warfare, grim and unyielding, was in the atmosphere.

She sat up in her chair, facing him, one rounded white arm outstretched along the table. "Let us get it over," she said, fixing her wide, clear gaze undauntedly upon him. "Matters have been going from bad to worse between us lately. I suppose it is due to the same cause?"

He leaned forward in his dominating way. "Aye, it's the same cause, and the cause must be removed. Things are likely to be unpleasant, my girl, until you give up all thought of that young whipper-snapper—Stallard."

A quick anger flamed in Dorothy's face. Then, with an effort, she repressed herself and spoke gently enough, but with a decision equal to his own.

"Father, you must realize, once and for all, that while obeying you in other things I do not mean to give up Hugh. Why should I? We love one another dearly"—her eyes shone, and a soft color flooded her face—"he is not the fortune-hunter you imagine. He is making headway in his profession and is willing to marry me without a shilling."

"So they all swear; but when it comes to the point there's another story." Crewkerne spoke bitterly. "Now, understand me. Dorothy, I mean it. You shall marry the man I have chosen for you."

"Sir George Fotherington, I suppose,"—the girl's lip curled—"a miserable, weak-willed degenerate, without a single manly trait in his character. Be consistent, father; there is a fortune-hunter, if you like; it is well known that in spite of his extravagance he has not a penny; that his estates are mortgaged up to the very hilt."

"All that's true enough, but my money shall pay off the mortgage; it's a fine old place is Fotherington; think of its history. Kings and queens have visited there, and who knows but what they may again, if"—he corrected himself—"when, you marry Fotherington? He has something to offer in return for your fortune—one of the finest estates in England and a famous name. ———"

"Which he has tarnished very considerably." Dorothy rose as she spoke. "You know yourself that there are ugly rumors about his play at cards. No," she drew herself up determinedly, "I will at least marry a man and an honorable one at that, even if he has not a penny beyond what he makes by his own efforts. I am tired to death of this money and position you set so high above everything."

"You've never tried living without money," said Jabez, with a sneer. "You'll soon realize the difference. I've known what it is to be cold and hungry and half-naked; my bones ache now at the thought." He shivered, and rising, moved nearer to the fire. For the first time she noticed a shrunken look about him. She was a warm-hearted girl, with his obstinacy, but none of his granite hardness. She went to him on a swift impulse, putting her hand through his arm.

"Let us keep the peace, even if we agree to differ, father. After all, money is not quite everything."

He shook himself free. "Bah! you talk like a fool, girl. It's what makes life worth living, gives you the pull over your fellows, gains their good-will and consideration, gets this," with the tip of a derisive finger he touched the filmy antique lace upon her gown, "and this—" the broad hand drew back suddenly. "You are not wearing your pearl necklace! Why?"

"Dorothy"

"To tell you the truth," Dorothy assumed an apologetic air, "it is a veritable white elephant, a terror to me. Suppose I lost it. Ten thousand pounds worth depending on one little clasp!"

His eyes contracted in a glance of suspicion. "You have lost it already."

"Nothing of the kind; it is in the little safe in my room."

"Then bring it to me."

Unscrupulous himself, he distrusted others, even Dorothy, who had never told him a lie in her life.

She threw him a swift glance of resentment. How hard he was, how suspicious, more inflexible than he had ever been to her.

"Must I really fetch it? I will ring for Amelie."

"Bring it yourself; I don't trust that fine maid of yours."

Dorothy smiled and moved towards the door.

"I would far rather be without pearl necklaces worth a fortune, if they are to be guarded so carefully night and day. However, as you do not believe me, I'll bring it to you to prove that it is quite safe."

In five minutes she was back again, the case in her hand. He took it from her and the lid flew up. On the soft blue velvet background the pearls gleamed flawless in color and shape.

With his thick, stumpy forefinger Jabez Crewkerne touched them, examining them closely to see if they were, in truth, those for which he had paid ten thousand pounds the year before.

Then he put them round his daughter's throat, clasping them by the huge pearl clasp at the back.

She protested. "I would far rather not wear them to-night. It is a dance, and you know lately there have been so many jewel robberies at balls. I know several women who have mysteriously lost theirs."

"Pooh! nonsense! Sheer carelessness and bad fastenings." Jabez tried the pearl clasp as he spoke. "This is quite safe, and what is the use of getting you fine things if you lock them up at home? Wear it, I say."

As he looked again at the beautiful pearls lying milky-white on his daughters neck, a thought suddenly ran through his mind. He was a man thoroughly unscrupulous in gaining an end.

"Well, you'd better be off," he remarked more genially. "Nice frock that, looks worth a lot. Hardly think there'll be a woman to-night with more value on her back."

"Don't!" said Dorothy ruefully. "I thought I had achieved an air of such simplicity."

"I mean to call for you," Crewkerne said, as she reached the door. "I shall be at the Club close by."

This was not an altogether unusual thing.

"Not too early, please," she turned back to say. "Last time you hurried me off with half the dances still to come."

When she had left the house Jabez hastened into the hall.

"Bring me my coat and hat, and whistle for a cab."

In a few minutes he was in the smoking-room of his Club, where, as he had expected, he found a vacuous-looking young man, chuckling over a comic paper.

"Jove! that's good! Listen to this Crewkerne."

Jabez listened with a bad grace.

"Very good! Excellent!" A sense of humor was not his strong point. "I want a few minutes with you, Fotherington."

The baronet's jaw dropped. He fixed an anxious gaze on the speaker.

"If it's that little loan——" he began, in palpable trepidation, when Jabez patted him on the back.

"Bless your heart, man, no! There's not a bit of hurry; take another year if you like."

"I say, it's awfully good of you,"——

But Jabez interrupted him, glancing at the clock. "How are things with you, my boy? Little speculation turned up trumps, I hope?"

"A dead swindle; the whole thing fizzled out, and to tell you the truth, Crewkerne, I'm more hopelessly on my beam ends to-night than any time during the past twelve months. Never seem to have a bit of luck over anything. I say, how's Miss Dorothy? Does she favor our little plan, eh?"

He gave a foolish laugh, pulling up his collar.

Looking at him Jabez experienced a sudden sense of repulsion for the brainless fop before him. "We'll pull that off in time," he said, reassuringly. "She thinks she'd prefer to marry Stallard."

"He's as poor as a rook—poor as I am," interposed Fotherington, "and no family, don't you know."

Crewkerne had all a self-made man's contempt of the loafer. He looked at his companion, and then thought of Stallard's six feet of manliness. "He's making headway in his profession and he happens to be out of debt, my boy; it will be pretty stiff running for you, even though you have a title and a castle at your back. Women are kittle-cattle."

"But if you hold the shekels she's bound to come round to your way of thinking," protested Fotherington, who thought his marriage with Dorothy Crewkerne practically settled.

"It'll take some working," said Jabez. "But all's fair in love and war. I've come to ask you if you'll help me to put a spoke in Stallard's wheel to-night, now?"

"Rather!" said the baronet, his vacuous face brightening into a look of interest. "But I say, you know, I'm bound for the Souths' to-night. Your daughter 's to be there, and she's promised me a couple of dances. Don't like dancin', as a matter of fact, but it's the only way to get a moment with her. She's always in request. What d'ye want me to do?"

Jabez knitted his bushy brows; his eyes grew steely and relentless as a tiger's. "If you pull through what I want you to do, I'll give you a check to-morrow for a thousand pounds."

"By Jove!" Fotherington's pale face grew suddenly keen and greedy. "I'd rob a poor box for that."

"I only want you to rob my daughter."

Fotherington burst into a foolish laugh.

"Get out, Crewkerne, no jokes! I shall have to be off in a few minutes. Thought you meant it."

"So I did," said the millionaire, unabashed. "Now listen to me."

He bent closer, though they had the room to themselves. "Its a ticklish job, Fotherington, but not a soul would suspect you. I remember someone saying that you carry your brains in your fingers. You're clever at parlor tricks, eh? Sort of 'Hey, presto!' and the thing disappears."

Fotherington chuckled in a gratified way. "That's so. Sorry I didn't go in for the illusion business when I was younger. I'd have made a fortune at it."

"How you do it isn't my concern," said Crewkerne, impatiently, "there's a cool thousand for you if you steal my daughter's pearl necklace and transfer it to Stallard's pocket. Never mind the rest; leave it to me."

Fotherington, still unbelieving, gave another of his silly laughs.

"You will have your little joke, Crewkerne."

The latter sat down deliberately at the writing table, and drew out his checkbook. Fotherington watched him breathlessly, fixing his glass more firmly in his eye.

The check was filled in with the magic figures, and Fotherington's name. Tearing the pink slip out, unsigned, the millionaire placed it carefully in his pocket-book.

"To-morrow, if you do what I ask this will be sent to you. Steal my daughter's pearl necklace during the evening and transfer it to Stallard's pocket. Get it done, if possible, before the supper dance. The necklace is worth ten thousand pounds."

"Is it, by Jove! But y' know, Crewkerne, the thing's an impossibility."

"That remains to be proved." Crewkerne's grim face had taken more inflexible lines. "Then so much the worse for you. You lose a thousand pounds tomorrow and a probable two millions with my daughter in the future. Moreover, I can make things very unpleasant for you, my boy. There's that little affair—", he nodded meaningly, watching his victim's face drop, "and, after all, you can but fail. I'm not the man to rub it in if you do fail; but your fortune's made if you succeed."

The baronet straightened his weedy length. "And I'm up a tree more than ever I was," he ejaculated, half to himself. Then his vacuous gaze went to the financier. "By Jove! there's a pair of us." He spoke with a laugh. "Well, here goes for trying it on, anyhow. Time I was off to the Souths'."

"I shall follow you presently," said Crewkerne, with a curt nod of dismissal.

The Souths spent lavishly, and their chef was famed for his powers. The excellence of their suppers secured a large attendance. The little tables were gay with flowers and people, as Crewkerne entered the supper-room, his hostess on his arm.

From a distant doorway Fotherington had given him the meaning nod which meant success to their plan. At one of the small tables Dorothy was seated, the gayest of the gay. Stallard was in the act of taking from her shoulders a long lace scarf.

The financier's eyes went to her throat. The pearl necklace was gone. Even as he looked, Dorothy, with a gesture that had become mechanical, put up her hand to assure herself that the pearls were safe. The next instant she had sprung to her feet with a dismayed cry that echoed through the length of the room and attracted everybody's attention in her direction.

"My necklace! It is gone!"

The host and hostess hastened over; Crewkerne out-distanced them. He seized his daughter by the arm. They were surrounded by a crowd of people.

"The necklace is worth ten thousand pounds!" Crewkerne's harsh voice broke the sudden, amazed silence. "But the thief is not far. He," pointing a finger at Stallard "has taken it."

"Father!" Dorothy shook off his hand. "How dare you? Are you mad?"

Stallard never said a word; he was absolutely dumbfounded. His good-looking face wore a look of amused incredulity.

"He has just taken it," pursued Crewkerne. "He helped my daughter to remove her scarf, and then I saw him slip something into his pocket."

The hostess, like every other woman present, was fingering her own necklace.

"Really, Mr. Crewkerne," she began, in tones of scandalized expostulation—Stallard was a favorite of hers—"you must be laboring under a delusion. I beg that you will not make a scene in my house. Dorothy must have dropped her pearls in the ball-room, or, of course, it may be another of those mysterious thefts which have occurred lately. The police seem powerless to check them. We will have the ball-room searched immediately."

"And the balcony," interposed Dorothy, white to the lips at her father's strange conduct. "I was there just before I came in here. Mr. Stallard and I will go in search."

"None of that," broke in Crewkerne, standing his ground, obstinately. "Search him; you need go no further; you'll find it soon enough."

There was a craning of necks from the guests who stood round in an amazed ring. To Dorothy there seemed to be thousands of faces looking at Hugh and herself.

The host intervened, speaking with some heat: "You have no ground for your preposterous accusation, Crewkerne. Stallard! Why, I'd as soon think I'd done it myself. Withdraw your remarks at once."

"I don't mean to," said the millionaire, doggedly. "If he's an innocent man he won't object to turning out his pockets."

The very atmosphere seemed to palpitate. There was dead silence.

Then suddenly, Hugh Stallard threw back his head and laughed, a pleasant laugh of amusement. His concern for Dorothy made him anxious to treat the affair as a joke.

"Is this a juggling entertainment, Mr. Crewkerne?" he asked, genially, "something after the idea of the gold watch which disappears miraculously from the magician's hat?"

He little guessed how near he came to the truth. "Just to gratify your curiosity, I will turn out my pockets—"

"No," cried Dorothy, passionately, "a thousand times, no! My father must apologize."

But with an air of absorbed concentration Stallard began to empty his pockets, placing everything on the little table before him. The necklace was not amongst them. Only one man had expected to see it emerge, yet there was a long-drawn sigh of relief as the tension relaxed. Dorothy stood with averted eyes. Most of the guests there knew that she and the man accused of theft meant to marry one day, though, as yet, their betrothal had not been announced. In those few moments the girl suffered an agony of shame.

Then, before them all, Stallard had his revenge. From amongst his possessions on the table he extracted a tiny ring-case, which most of them had noticed. Opening it, amidst breathless silence, he took out a beautiful pearl ring, and placing it upon his palm held it towards Dorothy, speaking her name.

She turned, glancing from him to the ring and back again.

Suddenly, with a tremulous smile, she realized his meaning.

"For me?" she asked, in a clear voice that all might hear. "Oh, Hugh, with all my heart!" And as she held out her left hand he slipped the ring on her finger.

With a magnanimity by no means characteristic of him, Crewkerne spoke:

"I apologize to you both, and I give my consent."

And turning on his heel he went out of the room.

The loss of the pearl necklace remained an unsolved mystery to all but two persons.

It was several days before Crewkerne received a letter in Fotherington's handwriting, a letter bearing neither signature nor postmark.

"Destroy the check you so generously made out in my favor," the note ran, "it suddenly occurred to me, my dear Crewkerne, that I might go one better. Many thanks."

A Modern Diogenes

ETHEL, aged six, had gone down the village street with her now doll. It could be plainly seen that she was in dire distress. She stood still, and after a close scrutiny of several men who passed, she accosted one.

"Say, are you an honest man?" she demanded.

"Why, yes, I think so," was the astonished reply.

"Well, then, if you're sure you're an honest man," said the little maid, "please hold my dolly while I tie my shoe."

LAURA F. RATE.

Identified

POLICE SERGEANT—"Can you give me a description of the person who ran over you?"

"Oi can that. He had on a fur coat an' an autymobile cap an' goggles."—Life.

The Heart's Ideal

BY EUGENE C. DODSON

WHATEVER our work in the world may be,
Some high ideal in life have we;
And the winner is he who learns, in truth,
To keep to the mark he set in youth.

The next number of Farm and Fireside—the October 25th issue—marks the beginning of just the best sort of a serial story. It is a story filled with characters which are natural and lovable and the moment you know the heroine, Miss Selina Lue, you will realize that she has a firm grip on your heart. Selina Lue is worth knowing, worth studying, worth copying and decidedly worth loving. The author of this famously successful story is Maria Thompson Daviess.

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Some of the best farm authorities in this country say that in a few years the United States will have to import wheat from Europe, and will have to import beef from South America. This means that the farmers of this country are going to make more money than ever before. The farmer who will make most money will be the farmer who is up-to-date, who keeps in touch with the new conditions, who knows the latest facts. FARM AND FIRESIDE will give you all the facts. It will come twice a month. It will be chuck full of information. It will be accurate.

FARM AND FIRESIDE has always been edited by farmers. It has always been printed in a farm county for farmers. To make FARM AND FIRESIDE the biggest and best farm paper we have added another farmer to our staff of editors. In addition to our managing editor and other editors we have secured as editor-in-chief, Mr. Herbert Quick, of Sioux City, Iowa. Mr. Quick is a farmer himself and has lived among farmers all his life.

The Best Home Paper

THE new and greater FARM AND FIRESIDE will be the best home and fireside paper published. Thousands of dollars will be spent in obtaining for our readers the best stories and romances. You will enjoy every issue. The new FARM AND FIRESIDE will have hundreds of practical suggestions for the home. How to make things, how to do things, how to save money; all will be told by housewives who have had the experience themselves.

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The Handsomest Farm Paper

HOW would you like, in addition to all these features, to have a beautiful colored cover on FARM AND FIRESIDE? Well, FARM AND FIRESIDE is to have that, too. FARM AND FIRESIDE covers will be beautiful pictures that you can frame and hang on the wall. They will be printed in full color. We have put a $10,000 addition to our printing press so as to print these covers for you.

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FARM AND FIRESIDE, Springfield, Ohio

FOOD QUESTION

Settled with Perfect Satisfaction by a Dyspeptic.

It is not easy to satisfy all the members of the family at meal time as every housewife knows.

And when the husband has dyspepsia and can't eat the simplest ordinary food without causing trouble, the food question becomes doubly annoying.

An Illinois woman writes:

"My husband's health was poor, he had no appetite for anything I could get for him, it seemed.

"He was hardly able to work, was taking medicine continually, and as soon as he would feel better would go to work again only to give up in a few weeks. He suffered severely with stomach trouble.

"Tired of everything I had been able to get for him to eat, one day seeing an advertisement about Grape-Nuts, I got some and he tried it for breakfast the next morning.

"We all thought it was pretty good although we had no idea of using it regularly. But when my husband came home at night he asked for Grape-Nuts.

"It was the same next day and I had to get it right along, because when we would get to the table the question, 'Have you any Grape-Nuts' was a regular thing. So I began to buy it by the dozen pkgs.

"My husband's health began to improve right along. I sometimes felt offended when I'd make something I thought he would like for a change, and still hear the same old question, 'Have you any Grape-Nuts?'

"He got so well that for the last two years he has hardly lost a day from his work, and we are still using Grape-Nuts." Read the book, "The Road to Wellville," in pkgs. "There's a Reason."

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

FASHIONABLE FALL CLOTHES

Tailored Shirt-Waists

There is nothing like a new shirt-waist now and then to help out the woman with the limited wardrobe. Whether of silk or cotton shirtings, many of the best looking waists this autumn are tailored in effect. Some of the newest of the silk waists which are made severely plain, fasten up the front with jet or black crochet buttons. All of these tailored waists have long sleeves—the majority have the regulation shirt-waist sleeves, though a number are being made with the Bishop sleeve. The silk waists are worn either with a stock collar which is made of the same silk and is attached to the waist, showing perhaps a touch of silk soutache braiding, or the waist is finished at the neck like a regular tailored cotton shirt-waist and worn with an embroidered linen turn down collar and a smart satin bow in the same color as the waist—or a black bow, or a net or fine linen jabot.

In buying a wash fabric such as madras, cotton Bedford cord or linen for a shirt-waist, it is quite the smart thing this season to select a material showing a touch of color which matches the shade of the skirt with which the waist is to be worn. It is better style to wear with a brown skirt, a wash shirt-waist showing a narrow brown stripe or a touch of brown embroidery, than to have the waist all white. This in a way carries out the costume idea.

No. 1161—Child's Rompers

Pattern cut for 2, 4 and 6 year sizes. Quantity of material required for medium size, or 4 years, three and three fourths yards of twenty-seven inch material, or two and three fourths yards of thirty-six-inch material

No. 1283—Double-Breasted Shirt-Waist

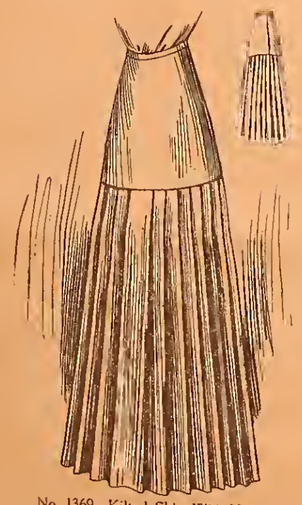
Pattern cut for 32, 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material

No. 1267—Double-Breasted Plaited Shirt-Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or two and one fourth yards of thirty-six-inch material. Use braid for trimming. This waist would look extremely smart made of taffeta or finely corded silk and trimmed with braid in the self color with a woven thread of gilt to brighten it a bit

No. 627—Plain Princesse Wrapper

Pattern cut for 34, 36, 38, 40 and 42 inch bust measures



No. 1369—Kilted Skirt With Yoke

Pattern cut for 22, 24, 26 and 28 inch waist measures

No. 1384—Moyen Age Princesse

Pattern cut for 34, 36, 38, 40 and 42 inch bust measures

The Vogue for Dresses

Dresses are very much the fashion this season, and, though many of them are plain little gowns, yet they are extremely smart in effect. The two dresses illustrated on this page and made from pattern No. 1413 are extremely good style. They are made with a princesse panel which gives the long straight line which we still cling to. One dress may be developed in Panama cloth or cashmere and trimmed with braid, while the other can be made of an inexpensive striped gingham, percale or any other wash material. Made up of wash material, this dress will be useful to wear in the morning when much housework is to be done. The pattern, which sells for ten cents, includes both the waist and the skirt portions.

If desired, the dress may be open from neck to lower edge and it is really well to have it open in this manner if wash fabrics are used, as it is much easier to launder a dress that may be opened out and ironed flat than one which is closed part way.

If, on the other hand, some woolen fabric is used for the dress, the skirt may be stitched to position from a point twelve inches below the waist to the lower edge. This leaves an opening above that is sufficiently large for comfort.

The woman who has little money to spend on her clothes will find it really economical to buy this pattern of house dress with princesse panel. She will have to pay only ten cents for it and yet from the one pattern she can have two entirely different dresses.

Another very fashionable dress illustrated on this page is the Moyen Age princesse shown in pattern No. 1384. This costume would look extremely smart made of dark blue serge and trimmed with black crochet buttons and braid loops, using heavy white lace for the yoke and collar. For one's best dress, this Moyen Age princesse would do nicely. It is a good model to use for black ladies' cloth or black broadcloth, as well as the blue serge, and it would be very stylish, if it were made in black, to have the yoke and collar of black net embroidered in jets or of black net worked with a gold thread.

No. 1413—House Dress With Princesse Panel

Pattern cut for 32, 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 36 inch bust, nine yards of twenty-seven-inch material, or five and three fourths yards of thirty-six-inch material. This picture shows how the pattern can be used to make two different dresses

No. 1290—Tucked Shirt-Waist

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material

No. 1266—Housework Apron and Dust-Cap

Pattern of apron cut for 32, 36 and 40 inch bust measures

Back View of No. 1384

Wearable Clothes

That is what you will find illustrated in the new Fall Catalogue of Madison Square Patterns, which is just ready for distribution.

It shows all the best of the new fashions for fall and winter—French ideas, many of them, but all modified to suit the needs of the American woman.

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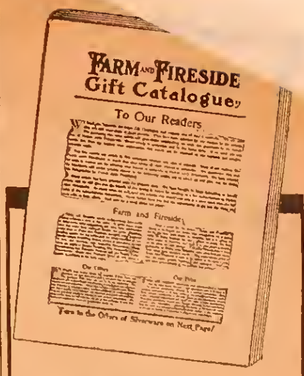

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Our Young Folks' Department

Good Work by Our Boys and Girls

A Spelling Match

EMILY LOUISA was in the fourth grade. She was a very bright girl in all her studies except spelling. Her classmate Katie Williams, was far ahead of her. One day Mr. Hall, the principal, came into Miss Elliot's room. Miss Elliot was Emily Louisa's teacher.

"My Pets" by Opal Slagle, Age Thirteen, Delta, Ohio

"To-morrow," he said, "there will be a spelling match, and the pupil in this class who stands up last—in other words, the one who is the winner will receive this medal."

He opened a small box and held the medal up to the class.

When Emily Louisa went into the schoolroom the next morning Katie Williams was the only girl there. She stood there gazing out the window.

"Did you study hard last night, Katie?" asked Emily Louisa.

"Not very, but I always forget in the word deceive whether the 'i' or 'e' comes first after the 'c'."

"The 'e' comes first," Emily Louisa told her.

"Yes, I'll remember the 'e, e, e, e' comes first," said Katie to herself.

At half-past eight the whole class was seated, and at ten o'clock Mr. Hall made his appearance.

"Good-morning, girls," greeted Mr. Hall.

"Good-morning, Mr. Hall," shouted the class.

"Half the class may form a line on one side of the room and half on the other," said Mr. Hall.

The girls jumped from their seats and stood in line. Mr. Hall took the speller from Miss Elliot, and pointing to Katie, said, "Spell 'hungry.'"

"H-u-n-g-r-y," spelled Katie.

"Right," said Mr. Hall.

Mr. Hall had gone around the class twice, and all who had missed were sitting at their desks, some weeping because they had failed. There were but three girls in each line and Emily Louisa was one of the three. "My! my!" said Mr. Hall, "this class is very poor in spelling."

Mr. Hall then looked at the book again, and said, "Spell 'season,'" pointing to Alice Aron.

"S-e-e-s-o-n," spelled Alice.

"Wrong," said Mr. Hall.

Alice went to her desk and joined the weeping girls.

The next girl spelled it correctly. She was Emily Louisa.

"'Right,' meaning to do right, next girl," pointing at Matt Ward.

"R-i-t-e," spoke Matt.

"Wrong! Next girl."

"W-r-i-t-e," spelled Bessie Wane.

"Wrong again."

"W-r-i-g-h-t," spelled Aurie Wells.

"Wrong," said Mr. Hall.

Emily Louisa came next. She knew just where the word was in the speller, the fourth word in the sixth row.

"R-i-g-h-t," spoke Emily Louisa.

"Cor—rect," said Mr. Hall.

"The Little Housekeeper" by Eloise Leitch, Coon Rapids, Ohio

There were now two girls left—Katie Williams and Emily Louisa. Katie's turn was next.

"Spell 'deceive.'"

"D-e-c-i—no, d-e-c-e—d-e-c-i-e-v-e," spelled poor Katie, and she turned scarlet.

"Wrong."

"D-e-c-e-i-v-e," spoke Emily Louisa proudly.

"Correct," said Mr. Hall, smiling. "You are the winner."

"Come here, dear," said Miss Elliot.

Emily Louisa went to the desk. Miss Elliot took a piece of blue satin ribbon from the drawer, slipped it through the medal, and tied it around the winner's neck.

IDA L. KROBOTH, Age Fifteen.

Raindrops

HEAR the little raindrops,
Fall upon the pane.
Little children pouting,
Do not like the rain.

Cheer up, lads and lassies,
The rain has work to do.
Why not for a little while,
Play at peek-a-boo?

GERTRUDE MARSH, Age Ten,
Winsted, Connecticut.

My Pony

I HAVE a little pony,
She is spotted bay and white;
Of course she has some naughty tricks,
But I shall teach her right!

Each day I put her bridle on,
And take her for a run,
You ought to see her shake her head,
She thinks it is such fun.

And when I turn her on the lawn,
Oh! then how good she feels,
She runs and jumps and shakes herself,
And kicks up her little heels.

I've named my pony Beauty,
And with me you'd sure agree
That she's the dearest pony,
If Beauty you could see.

MARJORIE HEBERLING, Age Eleven,
Conneaut Lake, Pennsylvania.

When I Am a Man

"WHEN I am a man," said little Landon Richard, "I intend to be a good one. I wants lots of money so that I can give it to people that are poor and worthy. Oh, I just wish I could do something to make other people happy."

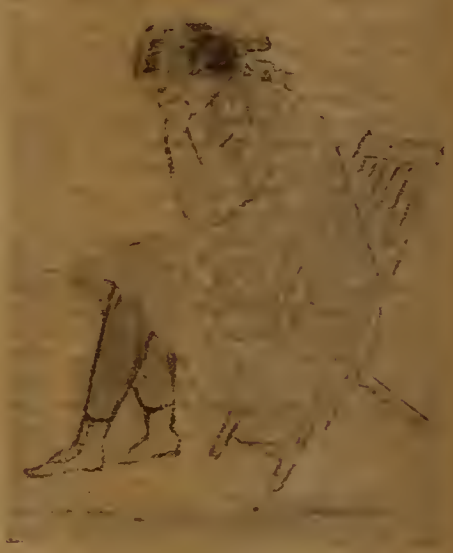
Landon's mother had been listening to this, and at the end she thought she would give him a little test. So she said, "Landon, I do wish you would take care of baby for a little while. I want to go over and see poor old Mrs. Green who is ill."

"Camping" by Roy Chandler, Age Fifteen, Greenville, Texas

"Oh, that baby," exclaimed Landon in an irritated tone, "Is she awake again? All right, I will be there in a minute."

Landon did not wish to be disobedient, but his minutes lapsed in to a half an hour, consequently his mother had to postpone her visit to Mrs. Green.

When Landon did come, his mother said, "I thought I heard a little boy say that he would like to make some one happy, and here you have wasted a whole



By Isabelle F. Donnell, Age Fourteen, Donnellson, Illinois

half hour when you might have been making your little sister, old Mrs. Green and your mother happy."

Landon did not know that even little things could help until after his mother had told him. Afterward he always seized the oportunity to make other people happy, if it was nothing more than a smile or a kind word that he gave. What kind of a man is seven-year-old Landon Richard going to be? A very good one, I think—don't you?

LOIS KINSELL,
Shiloh, Ohio.

My Dolly

O! DOLLY dear, it it is so fine
For us to go a-walking,
To see the flowers, and birds and bees,
And hear them all a-talking.
We'll take a pretty picture-book,
And rest awhile beside the brook.

SUSE RUTH LAPP, Age Eight,
Chalfont, Pennsylvania.

Bird Puzzle

THE names of ten American birds are tucked carefully away in the following lines. The first one is "wren." See if you can guess the rest. There will be NO prizes given for solving these puzzles. The answers will be published in the next issue.

1 The boys have a new rendezvous.
2 Pete is a very smart Indian lad.
3 The month rushed rapidly by.
4 The cape we expect is on its way.
5 He is a typical Arkansas native.
6 It seems to snow lightly.
7 We called Hello once twice, three times in vain.
8 Call her once and then leave on time.
9 You will find Tom and Rob in the barn.
10 They ate all the candy.

A Ladder

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Left side, a state in the United States.
Right side, the name of a President of the United States.
First rung, something which flows from a volcano.
Second rung, a huge stone.
Third rung, an extinct bird.

Cousin Sally's Letter

DEAR BOYS AND GIRLS:—

I wonder how many of you boys and girls would like to visit the Eskimos, who live away up near the north pole? Now that the pole has actually been discovered, these queer people of the north seem more interesting to us than ever.

Of course you all know that in the Arctic regions the sun can never get very high above the horizon, although during part of the year it does shine all day and nearly all night, while it scarcely shines at all for the rest of the year. The climate is dismal, cold and cheerless, but nevertheless, the people are the happiest, jolliest and most contented people in the world. Imagine any one living in a house of snow and sleeping on a bed of snow! But this is exactly how the Eskimos live. These snow huts are called igloos, and the Eskimos must always be careful not to have have the temperature indoors too warm, or the snow will melt. Wouldn't it seem strange to you to sit on a floor of snow and ice and have the ceiling leak and the water come dripping down on the back of your neck? Why, the mere thought of it is enough to make one shiver. But the Eskimos are a hardy race of people and are accustomed to the cold. Of course they do not sleep right next to the snow—a couple of reindeer skins are spread over the bed to keep the cold from penetrating. They burn queer little stone lamps which, in shape, resemble that of a clam shell. The wicking is moss which they gather from the rocks.

"The Stream" by Julia M. Church, Age Eleven, Vershire, Vermont

The boys and girls are very fond of outdoor sports. The girls are not so quiet and ladylike as our girls, but I suppose it is due to the rough life they lead. Neither are they as fond of playing with dolls as you girls are, though it is no wonder they are so plain and ugly. The face is of tanned seal skin with the eyes, nose and mouth of beads, while the doll itself is clothed in reindeer skin similar to the dress of its little mistress.

The boys go in for coasting, but since wood is a very scarce article, it is sometimes impossible for them to have wooden sleds. So what do you think they are made of—why pure ice! The boys cut it themselves from the nearest lake or river. And strange as it may seem these sleds are quite strong and durable. The boys can coast them down hill without breaking them provided the slope is smooth and even. There are many queer games that old and young alike play, but I haven't room to tell you about them this time. If there is a library near your home suppose you get a book about the Eskimos and find out more about these queer people of the north.

Next time I am going to have a splendid surprise for you boys and girls. You remember that I said I expected to do great things this fall and winter? Well, one of these "great things" has been accomplished. Read all about it in the October 25th issue. In the meantime, I send you all my love and thank you for your good letters. How does this page of your own work please you?

Faithfully always.
COUSIN SALLY.

Special Prize Contest

Isn't it just splendid, boys and girls? The editor has given me permission to offer more monthly prizes. So here is your chance to win a fine Brownie camera. The story contests seem to be so popular that I am having another one. However, you boys and girls who are not interested in story-writing may try your hand at drawing on any of the subjects which I have chosen. Start right now and send in the very best work you can do. The contest is as follows:

STORIES in less than four huodred words, the title to contain either of the following words: "Lost," "Runaway," "Enchanted."

DRAWINGS. Subjects: "The Old Man." Or, a heading suitable for our own page for December.

Write the story in ink, on one side of the paper only. The drawings may be in any medium you choose. Do not roll them, but send them flat.

For the two best stories we will give two Brownie cameras No. 1; for the two best drawings a watch to the boy and a sewing box to the girl. We will also give supplementary prizes of pictures, books, paper dolls, beads and doll toilet sets, etc.

The contest closes October 20th. Address Cousin Sally, Farm and Fireside, 11 East 24th Street, New York City.

The Post-Card Exchange

Roy Mullineaux, age fourteen, Mt. Airy, Maryland. Ernest A. Bell, age sixteen, 1210 Carlisle Avenue, Cambridge, Ohio. Emma L. Bell, age fourteen, 1210 Carlisle Avenue, Cambridge, Ohio. Florence Titus, age twelve, R. F. D. 1, West Alexander, Pennsylvania. Bessie Kent, age eleven, Pennsylvania. Katherine Geeck, age eleven, R. F. D. 5, Box 29, New Lothrop, Michigan. Bessie Kent, age eleven, Kents Store, Vermont. Carl Streiber, age fourteen, Massillon, Ohio. Harriet, E. Rose, age thirteen, Box 65, Kingston, Rhode Island. Vladimer Barta, age fourteen, R. F. D. 2, Box 9, Cedar Rapids, Iowa. Ernest Barker, age fifteen, Goshen, Massachusetts. Jerry V. Spencer, age thirteen, R. F. D. 1, Charlestown, Indiana. Della L. Houk, age six, R. F. D. 6, New Castle, Pennsylvania. Frances Kendrick, age ten, R. F. D. Box 63, Dansville, Michigan. Laura Fritz, age fourteen, R. F. D. 1, Jamison City, Pennsylvania. Ceeyle Maiden, age eleven, Ayrshire, Iowa. Emma W. Kenyon, age twelve, R. F. D. 1, Vly Summit, New York. Douglas Wadsworth, age eleven, Harmon, Illinois. Elizabeth Duncan, age nine, Parksville, Kentucky.

Our Girls at Home

A Flowery Romance

If any of you girls are planning to give a party this month how would you like to introduce the following guessing game by way of amusement? A small prize may be given to the one guessing the most flowers, and a booby prize to the one guessing the least.

Dapper young (1) was very much in love with (2). One bright summer afternoon he donned his most-becoming costume, and went, twirling his (3) as he walked, to pay her a call. He had fully made up his mind to offer her his hand that day for he could find no (4) until he knew his fate, and how could he know until he (5)? Then, too, he was a bachelor and felt the need of a home and a charming wife to care for him, and, above all, to sew on his (6).

She, modest as a (7), met him at the door attired in a charming gown of (8) hue. "My, but you're a (9)," was his mental comment. In a little while the lover launched impetuously into his declaration of love, and throwing himself on his knee, offered her his (10). She blushed like a (11) and said "(12), I can't answer you until I ask (13)."

Having gained the coveted permission he ardently kissed her (14) and preparations for the wedding went merrily on. The prospective bridegroom engaged the services of (15) to perform the ceremony and of (16) for best man. The bride-to-be asked her humble, but sweet twin friends (17) and (18) to be flower girls, and her most intimate friend (19) to be maid of honor.

On the day of the wedding, the (20) rang promptly at (21) summoning the guests, while the (22) warbled a welcome to them as they arrived. The bridegroom was manly and dignified, while the bride looked as pure and sweet as a (23) in her becoming (24) gown, trimmed in (25), and her head adorned with a (26). The lowering rays of the western sun imparted a beautiful (27) to the brilliantly dressed guests, who merrily drank the health of the newly-wedded pair in (28).

The bride soon changed her costume for a beautiful traveling suit of (29) broadcloth. The guests accompanied them to the station, waving (30) and throwing (31) at them for good luck. They departed in their private (32) for a most extensive bridal-trip, intending to visit the far away eastern land of the (33) before their return.

Isolene K. Mills.

A list of the correct answers may be obtained by sending a stamped and self-addressed envelope to Editor of "Our Girls at Home," care Farm and Fireside, 11 East 24th Street, New York City.

The Well-Dressed Girl

The well-dressed girl pays as much attention to the little details of dress as she does to the designing or making of a new gown.

If a button bursts off her shoe, she does not wait a week before sewing it on—she has too much personal pride for that. As soon as the discovery is made the button is immediately replaced. Then too, her shoes are always polished and the heels never allowed to run down.

She does not go out with torn or soiled gloves. Her collars and ties are always clean and white, and never, no never, does she wear a crumpled shirt-waist. If it has to be worn four days, she irons it out every night and in this way keeps it fresh and clean-looking.

Her coat and skirt are never hung up in her wardrobe with the day's dust on them. She sees to it that they are carefully brushed every night.

The well-dressed girl puts aside one day or evening of each week in which to mend her clothes and sew on lost buttons. In this way she saves herself the worry of having to stop and mend a garment when she is dressing and in a hurry to go out.

But above all, the well-dressed girl is particular as to the way in which she puts on her clothes. Her waist is pulled down tight in the back and pinned so that it cannot slip up, and her skirt never slips below her belt showing the safety pin.

A good way to keep the shirt-waist down is to tie it with a piece of strong tape. This holds the gathers in place and makes it easy to adjust the skirt. Always let the peplum of your shirt waist go under your outside petticoat. If it goes under the skirt, it is sure to make you look bunchy and cause your skirt to wrinkle around the hips.

E. M. Farlow.

Talks on Vocal Culture

By Benjamin Schwering

There are many girls at home who are the fortunate possessors of good natural voices, but who, for one reason or another, are unable to cultivate them. It is for these girls that this series of articles has been especially written by Benjamin Schwering, who, in the musical world, is considered an authority. These articles will appear monthly. Girls who are interested in vocal-culture cannot afford to miss one number.—Editor.

Breathing and Vocal Gymnastics

In this, my first article, I shall talk to you about breathing, which must necessarily come first, as it is the basis of vocal culture. To beginners, this may seem strange, but to anyone who has some knowledge of voice culture the truth of this principle is self-evident.

Most students understand the taking of a breath, or inspiration, but letting out the breath, or expiration, is a far more difficult matter, and one which requires much patient thought and study.

Letting out the breath in an economical manner is very important. Most singers waste a great deal of breath in producing tone; sometimes as much as they use. This is very wrong.

Training the Muscles

Singing is also largely determined by muscular action, for every tone is produced by a certain set of muscles. The muscles used in singing are those of the chest, lungs, diaphragm and abdomen. Now these muscles have to be cultivated just as you exercise your arms and legs to make them strong. Therefore, the first thing a beginner in vocal music must do, is to take a series of physical-culture exercises, known as vocal gymnastics.

These exercises are especially for breathing and breath control, and also to strengthen and cultivate the muscles used in singing, which is very important. As you proceed with these exercises, your power of endurance becomes stronger all the time, and your breath will become easier and easier to control. Every muscle used in tone production is exercised and your breathing capacity is greatly enlarged.

As you perhaps know, a singer's breath must be a deep one, and to attain this the chest must be held well expanded, while you are singing, and during practice. Also, remember that in a full, deep breath, the chest must expand as well as the waist.

Now do not think that you must hold your chest expanded simply by the pressure of the air. Stand erect and hold up the chest by the muscles of the diaphragm. This is the way a soldier is taught to do when on dress parade. The feeling you should have in taking a breath, when you are practicing, should be as though you were pushing out on the chest. In breathing out, the chest must not be allowed to drop until the air is all expelled, for the air must be forced out by the diaphragmatical and abdominal muscles. The diaphragm, as you know, is the large muscle, which divides the chest from the abdomen.

But now we come to the exercises. For the first week practice them about thirty minutes each day, after that about ten to fifteen minutes. While you are exercising stand erect, keeping the shoulders well turned back and your chest well expanded as explained above. Be careful not to raise your shoulders and collar-bone in taking a breath.

Exercise No. 1

Stand erect, with shoulders thrown back, close your mouth and suck the air through the smallest possible opening in your tightly closed lips. In this manner take a full breath, hold an instant and expel the air suddenly through the open mouth.

Repeat two times.

Exercise No. 2

Inhale a deep breath through the nostrils, hold an instant and then expel the air slowly through the smallest possible aperture in your tightly-closed lips. Do not purse the lips outward, but draw them tightly back across the teeth. Rest a moment, and repeat two times.

Exercise No. 3

Stand erect, keeping shoulders well back, place hands on hips, take a full breath through the nostrils and bend forward as far as you can, without bending the knees. Then assume an erect position again and bend back as far as possible assuming an erect position before bending forward again. Do this as many times as you can with one breath, then stand erect, and expel the air slowly through the nostrils. Rest a moment and repeat two times.

Exercise No. 4

Stand same as above, with hands on hips, inhale a deep breath through the nostrils, then bend as far as you can to the right side, assume an erect position and bend to the other side. Do this as many times as you can with one breath, then stand erect and expel the air through the nose. Be careful not to bend your knees in taking the above exercises. Rest a moment and repeat two times.

Exercise No. 5

Inhale a deep breath through the nostrils, place hands behind you in the middle of the back. Grasp the wrist of your right hand tightly, and hold it there as long as you can with one breath. Then expel the air through the nostrils, and simultaneously let the hands drop to the sides. Repeat two times.

Exercise No. 6

Stand erect and inhale a deep breath through the nostrils. Then hold your arms as high above your head as possible, having the thumbs cross each other. Hold them in this position as long as you can with one breath, and then expel the air through the nostrils, simultaneously letting the hands drop to your sides in a vigorous manner. Repeat two times.

Do not underestimate the value of these exercises. The basis of singing lies in the breath-control and in order to accomplish this it is absolutely necessary to practice these exercises faithfully.

Be sure to hold up the chest by the muscles of the diaphragm during practice, and be careful not to raise the collar bone and shoulders in taking breath. Simply keep the shoulders turned back.

A Cracker Social

A simple entertainment for a church social, and one in which the profits are large, may be furnished in this way: Provide crackers of all kinds. So many varieties are made nowadays that the assortment should be large. For ten cents serve a plate of crackers with a cup of hot chocolate or tea to each person. The tables decorated with fire-crackers add a touch of humor to the occasion.

E. H.

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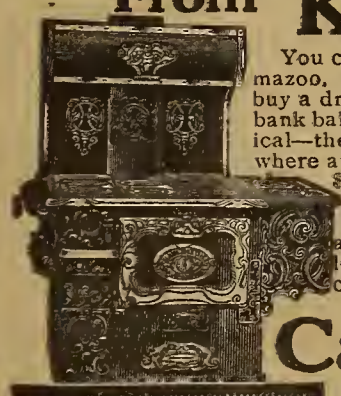
Here's Something New From Kalamazoo



You can save enough real money in getting a Kalamazoo, to buy most of your fuel—pay your taxes, buy a dress or suit of clothes or materially increase your bank balance. You get the best made—the most economical—the most satisfactory stove or range to be had anywhere at any price. With an actual cash saving of from $5 to $40 on your purchase. Hundreds of thousands of satisfied users have told us this is true.

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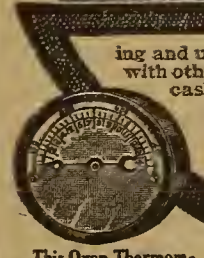

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made by a scientific blending of the best tropical fruit. It is a perfect food, highly nourishing and easily digested.

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Macbeth, is on my chimneys. That's my name. I would hate to put it on a chimney that would make me ashamed.

Macbeth lamp-chimneys are sold by the best grocers everywhere.

My book insures your getting the right chimney for your lamp; it also gives suggestions about the care of lamps. It is free. Address

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Making Others Happy

"Let every one of us please his neighbor for his good to edification. For even Christ pleased not himself."—Roman xv:2. 3.

A man's soul is like a garden belonging to an old, neglected mansion. It is full of excellent things to run to waste. There are vines unpruned and fruit-trees covered with moss and canker; thickets of roses and thickets of thorns; tangles of vines and of nettles; rank and noisome weeds, as well as fair flowers.

Now, it is the business of a garden to be wholesome, and sweet, and beautiful. It has no right to have weeds in it, nor to have the beautiful things dilapidated. It is made on purpose to confer pleasure and profit. Thus it is with the soul of man. It is full of good dispositions; of kind impulses; of true affections; of wholesome fruits. But besides these, the mind of man is full of frets and peevish murmurings, the stinging nettles of pride, and vanities flaunting coarse colors.

Making other people happy is neither a small nor an unimportant business. As I regard good nature as one of the richest fruits of true Christianity, so I regard the making of people round about us happy, as one of the best manifestations of that Christian disposition which we are commanded to wear as a garment.

The business of making men happy, that are not happy, does not lie half so near to the consciousness of men as it ought to. If it is in the power of men to touch the higher nature, and to rouse men to cheer, to good nature, to hope, to good will, to mirth, to courage, then this is a part of their Christian duty.

There are many men who feel that being happy is well enough in its way, but that its way is a very superficial way. "Oh," say they, "make men better, make them strong, make them pure and then their happiness will take care of itself." They undervalue the moral results of making men superficially happy.

"Blessed Are the Peacemakers"

Yes; and I think you might construe that without violence so as to make it read, Blessed are the Happiness-makers. Blessed are they that take away attritions; that remove friction; that make the courses of life smooth, and the intercourse of men gentle. Blessed are they who know how to shine on one's gloom with their cheer. Blessed are they whom God has equipped with humor, and wit, and a good imagination, and a buoyant temperament. They are God's torch-bearers, sent to those that sit in darkness and despondency, to cheer them.

Sometimes men have thought that it was useful for a Christian to lay aside smiles and laughter and gaiety. Nay! nay! Till the world weeps less, I think there should be more smiles. Till the world sorrows less, there should be more gaiety. Till the world lives better, there should be more of the imagination and of refined taste thrown over the rude forms of actuality of life. They should count themselves signally blessed of God who are endowed with a nature so full of pity and kindness, and love and imagination, and taste and music, that they can throw these joy-bearing elements abundantly out of themselves and make the whole of life around about them sweeter and truer and happier. Blessed are they to whom people go when they are in distress! Blessed are they around whom little children flock! Blessed are they that are sent for by men when they are in extremities and emergencies! Blessed are they upon whom grateful eyes look, saying "Come again; I am better for your coming." Blessed are they in whose presence the dust of care is laid by moistening drops. Blessed are they whose eye is serene; whose voice is gentle; whose heart is sweet; whose life make happiness!

It is not enough then, for us to ask, "Am I true? Am I just? Am I honest? Am I religious?" The question for us is, "Am I, every day, a maker of happiness?" God is. All holy spirits in heaven are. When I think of heaven I do not think of angels standing like wax candles along altar-rows, singing hymns of praise; I think of saintly life, of angelic life, the sweetest, the gayest, the most joyous, the most full of every mood of fancy and goodness. I think of beings that carry light in the eye, and joy in the heart and ecstasy in every touch. Are we going there with our sordid natures; with our coarse touch; with our selfish instincts; with our unsubdued pride; with our uncombed and disheveled vanity? Let us be followers of Jesus, who did not please himself, but who left, by the lips of his apostle, the declaration. "Let every one of us please his neighbor for his good to edification."—Extracts from sermon by Henry Ward Beecher.

The Perfect Prayer

DEAR Lord! kind Lord!
Gracious Lord! I pray
Thou wilt look on all I love,
Tenderly to-day!
Weed their hearts of weariness,
Scatter every care
Down a wake of angel-wings
Winnowing the air.

Bring unto the sorrowing
All release from pain,
Let the lips of laughter
Overflow again;
And with all the needy
O divide, I pray,
This vast treasure of content
That is mine to-day.

—James Whitcomb Riley.

From Stereograph, Copyright by Underwood & Underwood, New York.

This is an illustration of the traditional tomb of John the Baptist, situated at Samaria, Palestine

Let Us Do Our Best

IT IS not by regretting what is irreparable that true work is to be done, but by making the best of what we are. It is not by complaining that we have not the right tools, but by using well the tools we have. What we are, and where we are, is God's providential arrangement, God's doing, though it may be man's misdoing; and the manly and the wise way is to look your disadvantages in the face, and see what can be made out of them. Life, like war, is a series of mistakes, and he is not the best Christian nor the best general who makes the fewest false steps. He is the best who wins the most splendid victories by the retrieval of mistakes. Forget mistakes; organize victory out of mistakes.—F. W. Robertson.

The Unkind Word

HOW often a friendship of long standing is shattered because of an unkind word spoken in a moment of anger. How it cuts into the soul of the one you love and leaves a wound that is sometimes very slow to heal. Half the time we do not mean to be unkind; perhaps we feel irritable or depressed, or a vexation arises, and before we know it, the "unkind word" has escaped our lips—the unkind word that can never be unsaid. Of course, we apologize and say we are sorry, but "sorry" doesn't always atone for these sudden outbursts of temper. Oh, no! It is too easy to say "sorry" the next time and the next time. And friendship, you know, is a rare and delicate thing. If you start to throw water on a fire, will it not smoulder and its light die down? And if you continue to throw water on it, and still more, will it not go out altogether?

A few sweet, loving words—that is all, but coming straight from the heart they gladden and bring sunshine into one's life. Don't be afraid to say kind words; give of them lavishly. When your day is dark, don't you love to have a kind word spoken to you? Doesn't it bring a smile to your lips and a glad light in your eyes? And doesn't it make you feel that this old world isn't such a bad old world after all?

Have you ever thought that your own happiness often depends on the way other people act toward you? The next time one member of the family says a cross or unkind word to you the first thing in the morning, just notice how miserable and unhappy you will be for the rest of the day. Now suppose we change things around the other way. "Ah, that is different," you will say. "I never thought of that." Well, then, let us bear this in mind the next time we are on the point of saying something unkind. After all, none of us is perfect, but we can, at least, try to make our life happy, and our home the dearest, sweetest place in the whole world. Get into the habit of saying kind things, and they will come as natural to you as eating and sleeping. Kind words even though they may be the same, day in and day out, never grow old to those we love and who love us. A little forebearance, trust in God, then things will come easier, and love will reign in our hearts.—E. M. F.

THE HOUSEWIFE'S CLUB

EDITOR'S NOTE—This department has been introduced for the special purpose of helping the Farm and Fireside readers in all problems pertaining to the household. From now on we shall offer monthly prizes as follows: Two dollars for the best description and rough sketch of an original, home-made household convenience or labor-saving device; $1.00 for the second best; while 25 cents will be given for all recipes and household hints that can be used. This month's competition closes November 10th. Contributions must be written in ink, on one side of the paper, and must contain not more than 250 words. We would suggest that contributors retain copies of their manuscripts, as no contributions will be returned. Address "The Housewife's Club" Care of Farm and Fireside, Springfield, Ohio.

A Corner Cupboard

THIS attractive corner-cupboard has just been built in my hall upstairs. It is just the thing for odds and ends that I am unable to find space for in the other cupboards. If the man of the house is handy with tools he can, from your measurements, cut out the triangular shelves from ordinary board, or the measurements may be sent to the mill and the shelves cut to order. Six shelves, including the top, are needed, and an ornamental cross-piece as a finish. This latter should have molding above and below and some simple pattern cut or stenciled in the corners. It is better to have the shelves supported on wooden strips nailed to the walls than to put them on brackets. Stain the shelves to correspond with the woodwork in the hall. The curtain should be of some soft clinging fabric such as art serge or cretonne.

C. W., New Jersey.

Okra for Winter Use

BY ACCIDENT I found a cheap and simple way to put up okra for winter use. I use a wooden candy bucket, put in a layer of okra and one of salt until the bucket is full. If the brine leaks off, put on new brine, if not, pour it off and put on new brine every three weeks. When wanted for use, soak in clear water until the salt is out, then cook same as fresh okra.

MRS. M. E. U., Illinois.

Swiss Buns

ONE egg, one half cupful of sugar, one teaspoonful of butter, well beaten together. Two teaspoonfuls of cream of tartar, sifted into two cupfuls of flour, one teaspoonful of saleratus, stirred well into one cupful of sweet milk. Mix in enough flour to make into biscuits with the hands. They are better mixed this way than rolled out. Bake in quick oven.

MRS. F. J. B., Connecticut.

Butter-Scotch Cake

ONE cupful of sugar, one cupful of milk, two cupfuls of flour, two teaspoonfuls of butter, two teaspoonfuls of baking-powder, two eggs. Bake in cake oven.

FILLING—Two cupfuls of brown sugar, three fourths of a cupful of butter, and one fourth of a cupful of milk. Boil until it drops like taffy. Do not stir more than can be helped. This is a nice cake for Sunday evening tea.

G. M. L., Kansas.

Pepper Hash

FIFTEEN onions, twenty-four sweet peppers (green and ripe mixed) three strong peppers, one and one half cupfuls of sugar, three tablespoonfuls of salt, two and one half pints of vinegar. Remove seeds from peppers and grind the onions and peppers. Cover with boiling water and let stand five minutes; drain, add the sugar, salt and vinegar, bring to a boil and can. N. B. S., New York.

Cement for Enamel-Ware

HERE is a good cement for mending small holes in enamel ware—such as pots and pans, etc. Equal parts of soft putty, finely sifted coal ashes and sifted table salt. Mix all together; cover the holes well, then place the pot with a little water in it on the stove. Let set until the cement gets hard. This never fails; it is as hard as the enamel itself.

MRS. J. T., Illinois.

Soap From Cracklings

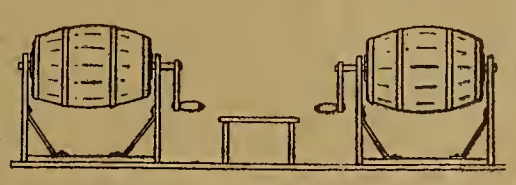
I FIND that by saving all the scraps of lard and the cracklings after the lard is rendered at butchering time, I can make enough soap to last the year around for a family of seven. I take five pounds of cracklings or scrap lard, add one box of lye and nine quarts of soft water. Boil until it resembles strained honey. Remove from fire and let it remain in the kettle for a day or two. When it is dry cut in cakes the size desired. MRS. K. A. J., Iowa.

Velvet Sponge Cake

ONE cupful of flour, one cupful of sugar, one half cup of boiling water, two eggs, one teaspoonful of baking-powder, one teaspoonful of vanilla extract. Sift the baking-powder with half the flour. Beat the eggs very light, add sugar and flavoring and beat again. Then add half the flour without the baking-powder. Beat again, and add the remaining flour with the baking-powder. Lastly stir in the boiling water. L. B., Kansas.

Churning Made Easy

HERE are two churns rigged up by my sons to suit their taste. When the old big churn wore out they were glad and asked me to get them two smaller barrel churns. These churns have stands and are turned by cranks. The boys fastened the stands to a platform about two



and one half feet apart and made a steady seat to go between the churns. In this way they can churn with both hands, which is not nearly so tiring as churning with one, and then, too, the exercise is splendid, the motion being somewhat similar to that of rowing a boat. The boys are proud of their strong arms and well-developed muscles, and to them churning is no longer an irksome task.

A SUBSCRIBER, Tennessee.

Apple-Butter

BOIL new cider—fresh from the press and not yet fermented—down to half its original quantity. To every gallon of the boiled cider, add one gallon of cooked apples. Stir frequently, and when the apples are soft beat with a wooden stick until they are reduced to a pulp. Cook and stir continuously until the consistency is that of soft marmalade and the color is a very dark brown. If it is too thick, add a little more boiled cider, and if too thin a few more apples. Add sugar and flavoring to taste. Some housewives add ground cinnamon and nutmeg about twenty minutes before taking it from the fire. When cold put into stone jars and cover closely.

MRS. J. L. R., Ohio.

Eggs Cracked in Setting

THIS is how I saved eggs that are cracked in setting. Cut very narrow strips of court plaster and place them over every crack or broken part, retaining the original shape as much as possible. Have these strips crossed and recrossed until made thoroughly secure from breaking before placing the eggs under the hen again. I have tried this discovery of mine season after season and have not failed once. Sometimes a little attention is required during hatching, and the chicken may not be able to remove the shell without assistance.

MRS. D. F., Georgia.

Mock Mince-Pie

ONE pint of green tomatoes, four large apples, chop both together very fine; two cupfuls of sugar, one cupful of raisins, one cupful of molasses, one half cupful of vinegar; one teaspoonful of cloves and cinnamon; a pinch of salt.

Boil all together half an hour. Just before taking from the fire, stir in three tablespoonfuls of flour wet in a little water. This quantity makes four pies. It may be prepared now and canned in glass jars while hot.

MRS. C. R. D., Virginia.

Renovating Cane-Seated Chairs

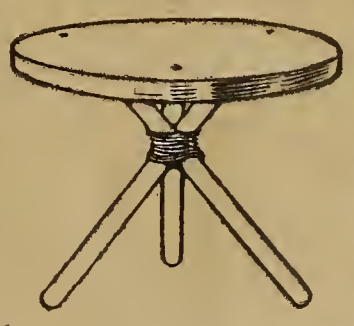
OLD cane-seated chairs may be easily renovated at home with the aid of heavy twine and varnish.

Begin by cutting away all the old cane, and, if necessary, give the chairs a thorough scrubbing. Then take a large needle, thread it with stout twine, and make a knot at the end of the string. Now work backward and forward through the holes crosswise from side to side, and from right to left, until all the holes are filled. When the weaving is finished, varnish the chairs, and set them away until perfectly hard and dry. The chairs will look very well indeed, after this process, and are plenty nice enough for one's kitchen. C. W., Ontario.

Handy Sewing-Table

THIS simple little table has proved a great convenience to me when I am sewing. Any boy can make it. The legs are made from three broomsticks and are fastened together with wire. The top of the table—or stand—is round and is nailed securely to the three legs. Give the whole a coat or two of paint—or varnish—and you will have a nice handy stand.

MRS. R. P. S., Ohio.



Housecleaning Hint

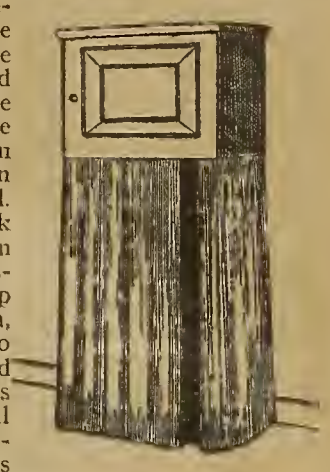
NOW that housecleaning time is here, perhaps some of "our" readers would like to know how I removed the paper from the dining-room wall? The paperers charge so much for the time they take, that I thought it wise to remove the paper myself.

Have on hand plenty of warm soft-water and several large sponges. Sponge a yard or two of the paper until it is soaked and blistered, then start to strip it. Proceed thus until the wall is bare. Wash it faithfully with suds of warm water and borax soap, then rinse and wipe dry. The paper will come off beautifully and the money saved is well worth the time and labor spent.

MRS. A. B., New York.

Combination Medicine-Chest and Closet

HERE is a scheme of mine for utilizing space in a small bedroom. In most every household there is a medicine chest. I have one so I hung it on brackets and fastened it securely to the wall. At the sides I tacked a curtain to the bottom of the chest and in front ran it on a brass rod. However, thick cord run through a casing at the top of the curtain, and fastened to hooks screwed into the corners of the chest will serve the purpose just as well. I then screwed hooks into the bottom of the chest and in this way I had a medicine chest and a clothes closet combined. C. W., New Jersey.



Sweet-Potato Pie

FOR one pie, take about a teacupful of sweet potato boiled and mashed, one teacupful of sweet milk, two tablespoonfuls of sugar, one beaten egg, a tablespoonful of melted butter, and a little grated nutmeg, or any flavoring desired. Bake in one crust. This is almost like squash pie. MRS. J. L. R., Ohio.

Sweet Pickles

WASH as many little cucumbers as you want to pickle. To remove the particles of grit which may cling to them, rub each one with a flannel cloth till quite smooth. Do it gently so as not to break them. When all have passed through this process, put them in a brine for twenty-four hours; then drain off and rinse in clear water. Prepare as follows a sufficient quantity of syrup to cover the pickles: To every quart of vinegar add three pounds of sugar, half a teaspoonful each of cloves, all-spice and mace, and one teaspoonful of cinnamon. (Use ground spices.) Heat the vinegar and sugar; boil and skim, add the spices tied in tiny bags—one for each can; put in the pickles to scald for a few minutes; then put in glass jars; fill with the syrup, and screw on tops tight. D. L., New York.

Molasses Cookies

THIS recipe has been tested and the cookies are "like Mother used to make." One and one half cupfuls of molasses, one cupful of granulated sugar, one cupful of lard, one teaspoonful each of salt, ginger and cinnamon. One cupful of cold water in which two heaping teaspoonfuls of soda have been dissolved; flour enough to roll out rather soft.

MRS. H. G. C., Virginia.

Removing Ink Stains

TO REMOVE ink stains, apply warm tallow; let it remain on sight an hour or two; then wash in warm soap suds and rinse. Repeat if necessary.

MRS. A. M. T., Wisconsin.

THE HOUSEWIFE'S LETTER-BOX

We shall be very glad to have our readers answer any of the questions asked, also to hear from any one desiring information on household matters. There is no payment made for contributions to this column. Address "The Housewife's Letter-Box," Farm and Fireside, Springfield, Ohio

Questions Asked

Directions for Making Hominy

Wanted by Mrs. H. C. of California.

Stains on Table Linen

Will some reader tell me how to remove red and blue stains from white table linen? Also mildew.

MISS J. P. D., Texas.

Grape-Wine

Mrs. M. H. of Connecticut would like a recipe for making wine from wild-grapes.

Sweet Potatoes

Mrs. A. J. of Tennessee would like different recipes for using sweet potatoes.

Questions Answered

Elderberry-Blossom Wine, for Mrs. F. L., Ohio

One quart of blossoms picked from stems, and packed down hard. Twelve quarts of boiling water, nine pounds of brown sugar. Add the blossoms to the water and bring to a boil. Then add sugar and bring to a boil again. When cool, add one half of a yeast cake, turn into crock and let set in a warm place for one week, stirring well every morning. Strain into jugs and add one pound of raisins to every gallon. Cover with gauze, let stand three months, then bottle. This is really fine. The boiling prevents its souring.

MRS. L. D. M., Vermont.

For Mrs. W. A. R, Texas

I always use fresh cucumber pickles. One cupful of salt to every gallon of water. Pour on cold. The brine is not boiled. The dill leaves can be obtained at any grocery store and are very cheap.

MRS. P. H., Indiana.

For Mrs. F. W. P., Missouri

I use one cupful of salt to every gallon of water. No vinegar is used. They will get sour enough in time.

MRS. P. H., Indiana.

Marble Cake, for E. W. U., Boston

For dark batter use one half cupful of butter, one cupful of brown sugar, yolks of four eggs, one half cupful of sweet milk, one teaspoonful each of cinnamon, cloves and allspice, one teaspoonful of baking-powder, two and one half cupfuls of flour. For light batter, use one half cupful of butter, one cupful of sugar, whites of four eggs, one half cupful of milk, one teasponful of extract of lemon or vanilla, two and one half cupfuls of flour, one teaspoonful of baking-powder. Both batters are made by rubbing the butter and sugar to a cream, adding eggs, beating a few minutes, then adding the flour sifted with the powder, the extracts and milk, and mixing into smooth batter rather firm. I always have good luck making this cake after recipe. Perhaps E. W. U. does not put flour enough in to make the dark batter firm enough. I hope she will like my recipe. I have used it for years.

MRS. L. H. C., Ohio.

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Model No 20

The safety, comfort and convenience of the *Marlin* solid top, closed-in breech and side ejection features are combined with the quick, easy manipulation of the popular sliding fore-end or "pump" action in the new Model 20 *Marlin* rifle.

In rapid firing—the real test of a repeater—the *Marlin* solid top is always a protection and prevents smoke and gases blowing back; the ejected shell is never thrown into your face or eyes, and never interferes with the aim; the fat forearm fits your hand and helps quick operation.

It handles the short, long and long-rifle cartridges without change in adjustment, and the deep Ballard rifling guarantees the accuracy, making it the finest little rifle in the world for target shooting and for all small game up to 150 or 200 yards.

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141 Willow Street, NEW HAVEN, CONN.

Try Kerosene Engine
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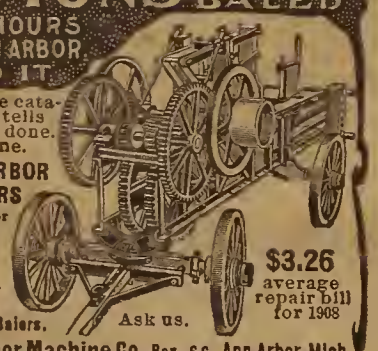

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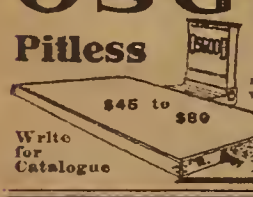

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Painting on the Farm

I CAN hardly understand why so many farmers do not keep their farm buildings and implements in fine appearance and good preservation by the use of paint, when so little expenditure is required and the process of painting so easily learned. Years ago, when white lead had to be ground by hand, and pigments added for shades of colors, the work was quite difficult. Now any color or shade of color may be obtained already for application.

The selection of colors for use in different places is a matter of importance, and it is always economical to retain the original color used. A drab, or sandstone shade, is most appropriate for all kinds of farm implements; blue is not pleasant to the eye. White, gray and brown look well on residences; red is out of date. The whole interior of a house should be light, the parlor snow or ivory white, the sleeping rooms a shade of white, and the kitchen drab. That color will not show smoke and can easily be kept clean. A dark-colored kitchen, as well as that of any other room, is depressing. A gray white is splendid for a dining-room. Of course, a hardwood finish of oak, ash or white pine is desirable, especially the two first mentioned.

I have found from my own experience that all of the painting can be done by the farmer himself, and the longer the intervals between coats the better. By this I mean not to follow immediately by another, although the first coat may feel dry, for paint put on rapidly will be liable to crack. When applying a coat take but little paint upon the brush in order to avoid puddling or dropping. Always begin at the top and paint downward. Work the brush back and forth until the material is evenly spread, then sweep downward or from left to right, when beginning, then from bottom upward or right to left. This may be reversed if handier. Lessen the pressure until the brush is swept clear.

To avoid touching the wall-paper, plane a thin piece of board six inches wide and two feet long so that the edge is beveled down to a sharp edge. Place this board against the wall and tight against the casement, then use the brush and it will be found a nice job. Use turpentine to reduce paint for inside work and boiled oil for outside.

A clear brilliant white for the parlor may be produced by making the last coat of zinc and demar varnish—one fourth of the latter to two parts of zinc, thinned to the proper consistency with turpentine.

When a wagon is to be painted, remove the box and coat the gearing first, then the back sides of the wheels, finishing up on the front. Nowhere is it more essential to carry but little paint upon the brush, which should be small and flattened, then on wheel-painting. If too plentifully put on, it will puddle between the spokes.

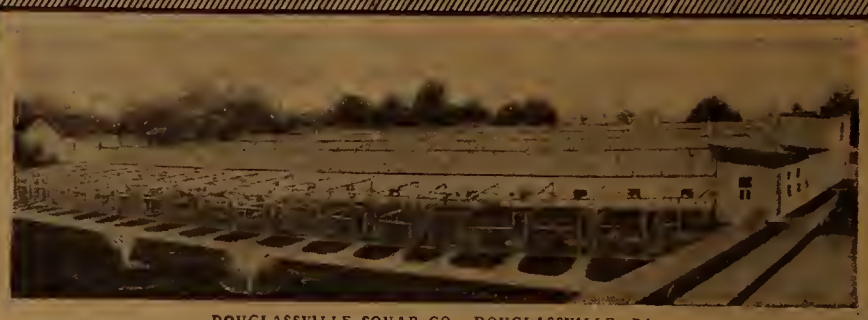
When painting new work, one coat should be given before putty is used to fill up holes and cracks. All paints for outside work should have a foundation of white lead. These, excepting dark green and Chinese vermillion, cost generally about one dollar and fifty cents a gallon pail, and this amount will cover about two hundred and forty-four square feet. To see how much material will be required, multiply the entire length around by the height; then divide by two hundred and forty-four and the result will be the amount of paint necessary for one coat. If measurement is one hundred and fifty feet around and the average height twenty-two feet, there will be thirty-three hundred feet to coat. This number divided by two hundred and forty-four will show that thirteen gallons of paint will do the work, and at a cost of a little less than twenty dollars. It is well to have a little shellac for coating pitchy places. The paint should be kept well stirred up. In any work where the paint is desired to dry quickly, add about an ounce of Japan to a quart of paint, and stir it in well.

For varnishing, a medium sized flat brush should be used, and the coating applied quickly, turpentine being used to thin with. It must not be brushed down much. A fairly good varnish will cost about thirty cents a pint, and turpentine about forty cents a quart. It is well to keep on hand a few sheets of sandpaper, medium and fine. If rough places are smoothed down a better finish may be produced.

When through with the paint-brushes, work out all the paint possible, then wash in very warm water and strong soap. A little ammonia added will be of essential aid. Where the brush is to be used again in a few days, or even in a week or two, set the bristles into a can of linseed oil deep enough to come up to the ferrule. This is for brushes used in paint. Varnish brushes should be washed, unless to be used in a day or two, then kept wet with turpentine.

WM. H. UNDERWOOD.

Amatite ROOFING



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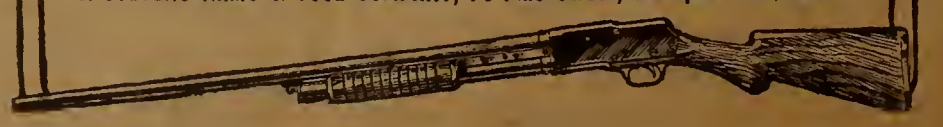

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FARM AND FIRESIDE

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The Improvement of the Land

By W. Milton Kelly

THERE are three classes of relations that we must take into account before we can begin any systematic plan for putting our soils to the most profitable use. These are the physical, biological and the chemical relations and these three relations are so complex and so closely related in their actions that it is very difficult to say just where one begins and the other leaves off. Much of the matter that is written regarding the great question of soil fertility is written by men who have studied the problem in a comparatively small field and who are especially interested in some one method of increasing soil productivity. The result of reading these special articles causes many practical farmers to believe that one or two things constitute the sum total of the fertility problem, instead of being simply a fuller statement of one of the numerous things that every successful soil-handler must use.

When we get right down to the fundamental principles of keeping up and improving the fertility of the soil, so that it will yield the greatest profit consistent with unimpaired productivity, we find that no one method is the whole thing, nor can it be substituted for the other, although each one in its place may be exceedingly useful.

Every man has his hobby and some will preach lime, some clover, dust mulch, soil inoculation, humus, crop rotation, bare fallowing and chemical plant-food. For this reason it will be my purpose to discuss these three relations and point out a few limitations and show how each relation depends upon the other in any rational scheme we may adopt in maintaining the fertility of our cultivated lands.

The Physical Condition of Soils

The physical condition of the soil relates to its behavior toward moisture, heat, light, penetration of the roots and the implements that are used in cultivation. First we should consider the moisture conditions. The beneficial influence of drainage is not a subject of controversy, although there are many conflicting views with respect to the conditions under which it may be economically applied and the methods of application, but these questions must be worked out by the individual himself, according to the value of the land, the cost of labor and other considerations applicable to local conditions.

Thousands of acres of our naturally fertile land are practically useless for agricultural purposes because the moisture conditions are not right. This leads us to drainage on one hand and the conservation of moisture on the other. Of course every farmer is not in position to put in an extensive system of tile-drainage at one time or to get his soil in the best physical condition to conserve moisture, but he should so plan his work that what he is able to do from year to year shall fit into a permanent system of drainage. Drainage and moisture conservation go hand in hand and if these conditions are right, it is easy to control the heat and texture of the soil by cultivation and plowing under humus-forming materials. Manure and fertilizers are expensive things that cost us either money outright or else cattle-foods and labor and it is very important that we have our soils, as far as possible, in the best physical condition, to make the most economic use of these manures and chemical plant-foods. It is easy to throw away dollars' worth of fertilizers or to squander them upon land that is not in a proper physical condition for their reception and economy.

Thorough tillage and amending the physical condition of the land is a thing to which we do not pay enough attention. We spread our efforts out too thin. We have inherited this habit, but the circumstances which justified our forefathers in their thin farming and fertility robbing have passed away and present conditions demand a more intense system of agriculture.

In improving the physical condition of the soil we should look upon the soil as the home of the plant and plan our work so that the roots of the plant will delight to be in it. If we could make all of our soils just right in respect to texture and absorbent power, then without any change in their chemical composition, without imparting to it any more chemical elements, crop-growing would be a simple business. Improving the physical conditions of the soil is the guiding principle of soil improvement, yet if we neglect to improve the other conditions we will gradually reduce the crop-producing capacity of the land until growing profitable crops is out of the question. The history of every agricultural country proves that it is more profitable to maintain the fertility of the land than to skin it of its original fertility and then try and bring it back again.

The Biological Condition of Soils

The biological condition of the soil is of great importance as it deals with the organisms that change the elements of plant-food into a form available to nourish the growing plants. Without these minute organisms plants could not obtain nitrogen, which means that their growth and development would be practically stopped. The biological condition of the soil is to-day looked upon by soil experts as first in importance. Soil chemistry was for many years the great study. A profound change has come about during the past few years. We no longer look upon the soil as a dead, inert thing holding plant-food, but a mass of organisms teeming with life. It is no longer recognized as a mere chemical laboratory composed of a number of chemical substances in various stages of availability, but rather as a mass of germ life. While we have not yet secured a sufficient knowledge of germ life, or soil bacteria, to arrive at positive conclusions; yet the investigations of modern scientists are so important in their bearing upon the nitrogen of the soil and plants that they must be considered in deciding upon any rational system of soil management.

While it is possible that the relations of these organisms, or bacteria, are as important to the mineral elements of fertility as to the nitrogen of the soil, yet the problem of the transformation of nitrogen is far more significant to the fertility of the soil. The nitrogen is rapidly lost from the soil unless the best methods are employed in its management, and for that reason it is more important for us to devote our attention to promoting the development of the bacteria that act favorably upon the nitrogen and its various compounds, than upon the mineral constituents of the soil and plants.

It is a practical question to learn how these bacteria, being not already present, may be added to the soil and how we may stimulate their activity if they are present. These questions are receiving the closest study and attention and facts of significance are being establ

Most soils have nitrifying bacter ready present, so that a stimulati their activity is needed, rather tha addition of more bacteria. Stabl nure contains bacteria in abundanc its application to the soil often pr results far beyond the fertilizing of the manure for the reason th bacteria, after completing their wo making nitrogen in it available, upon the humus of the soil and its nitrogen into a form availabl plant-food. An application of lime to a soil well supplied with humus frequently stimulates the action of the bacteria and greatly increases its productivity.

Nitrifying bacteria require large supplies of oxygen and their work is stimulated by anything that adds more air to the soil. Good tillage and the frequent cultivation of the soil increases its amount of available nitrogen. Practical experience proves that the more thoroughly land is cultivated the more nitrogen is made available and the larger the crops. Land that is cultivated when not occupied by a growing crop, is subject to a severe loss of nitrogen; there being no growing plants to make use of the nitrogen, much is lost in the drainage waters.

The power of certain plants to appropriate nitrogen from the atmosphere and deposit it in the soil is so well understood that few thinking farmers would plan a rotation of crops without including at least one leguminous crop. However it may be easier to arrive at an understanding of the question if we consider the conditions that are the most favorable for the development of these bacteria or root nodules upon plants.

[CONCLUDED ON PAGE 2]

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Notes From the Field

Practical Talks on Practical Matters

Planting Nut-Trees

Our native nut-bearing trees have been treated like the other natural resources of the country—exploited, wasted and destroyed until many people are beginning to feel alarmed at the outcome. Our fertile lands have been robbed of their productivity by the one-crop system. The forests have been cut down for the best timber, and no provisions made for a future supply. The walnut, chestnut and hickory, as well as the stately pecan-tree of the Southern states have fallen before the ax, with their fellows—the elm, the ash, the oak—to make room for more grain crops, tobacco or cotton. Thousands upon thousands of valuable trees, both for nuts and for timber, have perished in this manner. In many cases it will be generations before the average yield per acre will again attain unto that which was destroyed.

It is too late now to grieve over the errors of the past. But it is not too late to quit the wasteful habits, to begin to repair the damage done, and to save, utilize and improve what is left.

Our native black walnut (Juglans nigra) is the most valuable of all trees for its timber, which is used for furniture and cabinet making and brings the highest price in the market. The large, oily nuts of this tree have a fine flavor and always bring a fair price in the market.

The shell-bark hickory is another native tree, of hardy and sturdy growth, the wood of which, on account of its great strength and elasticity, is highly prized for making agricultural implements, and is unsurpassed for fuel. To our taste there is no other nut that grows, either foreign or native, that equals the nut of this tree for its fine, rich, nutty flavor.

The American sweet chestnut and the butternut-tree are both hardy and quick-growing trees, valuable for both nuts and timber and can be propagated and grown anywhere south of the Great Lakes.

The nuts of our native trees have already made a good beginning in forming the body of various food products, whose market value is growing rapidly, such as butter, oil, confections and concentrated food-stuffs that are meeting an increased demand. There is no diet more nutritious, healthful and easier digested than the products of our various nut-bearing trees.

There are thousands of farmers who have no nut-trees growing on their land, but whose soil is highly suitable for growing these trees. Such farmers should plant some trees every year, and not be deterred from planting, on the ground that they would have to wait so long for results. The planting and propagating of nut-trees is elevating and profitable, pleasing and in harmony with the laws of Nature, and has a great future owing to its natural adaptability.

J. M. Smith.

Ginseng-Growing

Ginseng is a native of our woodlands, formerly found quite generally throughout the wooded section of Minnesota and elsewhere, and has been gathered in large quantities until now it is scarce, although it is occasionally met with in our woodlands. It prefers moist, well-drained, porous soil, and a somewhat shaded position. It is in good demand for exportation to China, where it is regarded as having high medicinal value. Formerly, the whole supply of this root was obtained from woodlands, and the early settlers in many sections found it a good source of ready money.

There is a chance to make a good profit, but no more so than in some other lines of gardening where the same amount of intelligence is used, and where there is the same amount of risk. It has been reported as being a tremendous revenue producer, and this has led many parties to go into its cultivation who knew little or nothing of its care. Such people naturally failed; it could not be otherwise. Others who have raised it have depended for their income entirely on the selling of small seedlings and seed to be sold to those who are starting new plantations. This can be hardly looked upon as a permanent business, although it may have been profitable for a little time.

Comparatively little ginseng has been raised in a cultivated way for exporting. When cultivated it is liable to be injured by several diseases, some of which are exceedingly troublesome. It is not necessarily a "fake" crop, although much misrepresentation has been used in order to induce the ignorant to buy. In cultivating it, it is customary to protect the seedlings with a lath screen, or else to grow them in rich forest mold under high-topped deciduous trees. It takes several years for the seed to get roots big enough for exporting, even under the best of conditions.

Prof. S. B. Green.

Protecting Young Trees

"How shall I best protect my young fruit-trees from rabbits in the winter time?"—G. E. G., Auburn County, Nebraska.

This is a timely inquiry. Many valuable young trees are completely ruined every winter by the cotton-tails, especially when there is much deep snow, and the little animals find it hard to secure food. It is a matter that everyone starting a new orchard should attend to during nice days of the late fall. The danger is that if neglected until after the corn is husked and the other fall work all done up, it may be neglected altogether.

Some people paint the young trees with a lime whitewash. This has other good effects besides serving as a protection from the rabbits, as it destroys the larvæ of harmful insects as well. But it is apt to be washed off, more or less, by the winter rains and leave the trees exposed to the attacks of the rabbits.

Others bind corn-stalks or wisps of hay or slough grass, about the young trees. This is a somewhat tedious task, and objectionable to some on account of the time it takes to do it. A good way is to use ordinary building paper, or tar paper, for wrapping about the young tree-trunks. This, as well as the corn-stalks or straw, should be removed in the spring in order to let the sunshine and a free circulation of the air upon the body of the tree. If one cares to go to a very little more expense, there is no better means of protection in this matter than ordinary fly-screen. This once put about the trees may be left in place until the trees are large enough to be beyond danger from the rabbits. Thus in the end the fly-screen is probably even less expensive than the other methods.

M. G. Rambo.

Water-Power and Electrical Appliances on the Farm

In the July 25th issue of Farm and Fireside is a communication telling of the well of Stauffenberg used to generate electricity. I am interested in this subject and would like you to publish an article answering these questions: What would be the probable approximate cost of the electrical machinery and appliances necessary to furnish light and power for a dairy-farm carrying about thirty cows? Is electricity in practical use for heating? Would heating appliances be very expensive? Would such heating be as safe as other methods?

M. A. C.

In order to ascertain the power-possibilities of an artesian well after the vein has been struck, the first thing to do is to test the pressure. This may be done by the use of a water-gage. It is presumed that there is a two-inch pipe in the well. On the end of this pipe screw a T and then cap the top, inserting the gage in a hole bored in the cap. A two-inch pipe may lead from the end of the T projection, and thus a test of the well is made while a two-inch stream is escaping. Then the two-inch pipe may be reduced and an inch pipe inserted when a test may be made of the power of the well while an inch stream is wasting. In this way the pipe may be further reduced and tests made while still smaller streams are escaping. The proper way to make a test always is to make it when some size escape is being made.

Artesian wells vary so much in pressure that no construction company may estimate the cost of equipment unless the pressure of the well is accurately given.

Without knowing the power of any well it is a difficult matter to get an estimate on the cost of harnessing the flow to the purpose of power, illumination, or heating. The cost depends entirely on the amount of power required. To afford some idea of such cost I have, with the aid of one of the members of a Chicago firm, figured the cost of a capacious plant for power, illumination and heating. It totals $1,135. The water motor by which the power of the well is tapped is of the Pelton wheel type of twelve-horse-power and is listed at $500. This drives an eight-kilowatt generator or dynamo that costs $230. It generates sufficient electricity to drive a five-horse-power motor for driving a shaft to which may be belted the machinery required on the average farm. The generator will produce from five to ten horse-power.

The five-horse-power electric motor costs $135, the shafting, belts, etc., $45, the electric wiring in house and buildings about $150 and the switchboard $75. These figures represent the maximum cost; it is possible that they may be reduced.

Such an estimate contemplates the use of sixty incandescent lights, thirty to be used at one time. By the use of what is known as the Tungsten, or latest model of light, twice as many lights may be had. Of course more current for power purpose may be had when all of the lights are turned off.

To go back to the water motor, the type on which the figure is given, is a high-priced one. A less costly one may be had if there is more pressure in the well. A well with a fifty-foot head will operate a ten and a half horse-power motor that will cost $285.

But there are still cheaper water motors, as I found by calling on another Chicago company. A ten-horse-power double motor running 380 revolutions costs $275, and a double machine of five-horse-power may be had for $100, and the prices run down to a one-horse-power single for $35. Double motors have two separate wheels in the case attached to the shaft. Machinists figure that in the matter of illumination there are eight lights to the horse-power.

As to heating a house with electricity, the wires that conduct the current for lighting may in most part be used. An electric radiator that costs $13.25 will heat a room ten by ten feet in size. In a house of six or eight rooms there would have to be a radiator in most of the rooms. Radiators cost all the way from the lowest quoted above to $100.

Of course the electric people are claiming that to heat a house by this method is just as safe as by any other. Much depends on good wiring, insulating and other features of the equipment.

J. L. Graff.

Another Way to Cut Corn

Mr. R. B. Rushing's method of cutting corn, illustrated in a recent issue of Farm and Fireside, is a great improvement on the old haphazard way. But a few years ago I learned a way of cutting corn from men who follow it as a business in Hardin and Hancock Counties, Ohio, which I think is superior to Mr. Rushing's plan. It is as follows:

Tie one round of "gallows hills," which would be rows four and five and twelve and thirteen for eight rows of corn in shock-row, then cut these rows, setting corn in "gallows hills", and tying securely, which makes a good solid center to shock to, then take row No. 6, cut to first shock, set corn up, then to second shock, and so on across the field. Then come back on row No. 3. Gather in the rows in this way till the shock-row is finished. Simply cut one row at a time, from shock to shock. There is no walking empty handed, you have a good armful of corn to shock, and are right close to the shock when you get your armful.

In the counties spoken of, corn is usually cut either ten or twelve hills square and the ground seeded to wheat, and this way of cutting is usually followed. Try the plan and cut one fourth more corn in a day.

M. Mitchell.

The Improvement of the Land

[continued from page 1]

The amount of moisture in the soil has a marked effect upon the growth of root nodules, a moist soil being better than a dry one. The organisms must have air, hence the importance of cultivation, both to admit air and to conserve moisture. Soil acidity is unfavorable to the growth of these organisms, hence the addition of lime or ashes to the soil is an advantage and often a necessity for the formation of these nodules.

The whole scheme of improving the biological condition of the soil depends upon making the conditions favorable for the growth and development of these little organisms. They must have suitable temperature, moisture, movement of the air in the soil, some base for their products to combine with and likewise some food. In other words the physical and chemical conditions of the soil must be right if these little helpers do their best for us.

The Chemical Condition of Soils

Thus far I have discussed things that every practical farmer can do to improve the condition of the soil, but these count chiefly in using up the nitrogen faster and can do very little, indeed, toward making the minerals more available. There is certain to be a decrease in the productivity of the soil as the supply of chemical plant-foods is diminished. This condition is many times more noticeable on farms where the physical and biological conditions of the soil have received the greatest amount of attention, and goes to prove the fact that many of the best farmers have been paying too much attention to increasing the supply of available nitrogen without maintaining a corresponding increase in the amount of mineral fertility. Nitrogen stimulates a rank growth of plant-structure, but the development of the fruit or grain is measured more largely by the amount of available phosphoric acid and potash in the soil.

Right here we may call attention to the fact that the growth and development of every plant is limited by the one element in the smallest available proportions. If there is only enough phosphoric acid to mature a yield of twenty bushels of corn to the acre, there will be but twenty bushels produced, even under the most favorable conditions, although there may be sufficient potash and nitrogen in available forms to produce a sixty-bushel yield. In such a case the improvement of the conditions that make the soil nitrogen available would not produce any more corn, but would simply put the nitrogen in a condition to be lost by drainage and decomposition.

The first fact that we need to take into account is to understand that we cannot make something out of nothing and that we are sure to lose every time we try it. Plants cannot thrive unless they get their food in the required proportions and the soil must furnish most of these elements. Many of the chemical problems connected with the soil afford perplexing study to the most skilful chemists, but on the other hand there are facts about the chemical composition of soils that every farmer ought to understand and can learn by giving the subject a little thought.

The great question is how to supply these chemical plant-foods to the soil and many will say at once, feed live stock and save all of the manure resulting from feeding, and I will frankly say that this is the most feasible plan, but every farmer cannot practice this kind of farming, and even though he could, in time he would find that it was necessary to add potash and phosphoric acid to his soils if he would grow his crops at a profit.

When we begin the improvement of land that has been skinned for two or more generations we must look beyond the manurial resources of the farm to bring the soil back to its former state of productivity. We may improve the physical condition of the soil by drainage, tillage and plowing under humus-forming materials. We may improve the biological condition by growing legumes, adding stable manure and making the conditions favorable for the development of favorable bacteria in the soil, but once the supply of available potash and phosphoric acid is exhausted we must go beyond the farm to improve the chemical condition of the soil.

To sum up the improvement of land I would suggest that we give our soils water and air drainage, by tile-draining and surface-drains, deep plowing, decomposing large quantities of organic matter, keeping the soil occupied by growing crops and increasing the root-growth of plants by the use of chemical plant-foods and getting away from the common, ignorant belief that only leguminous plants increase the amount of available nitrogen in the soil. Legumes are the best, but the soil bacteria are waiting anxiously to feed upon every root and stem that is plowed under and make its nitrogen available for another plant.

Agricultural Extension Schools

The Workings of the New Plan in Ohio

Last winter the Ohio legislature enacted a law, known as the Alsdorf Law, to provide for Agricultural Extension work by the College of Agriculture and Domestic Science of the Ohio State University.

Section I. of this law provides: "That the College of Agriculture and Domestic Science of the Ohio State University is hereby authorized and instructed to arrange for the extension of its teachings throughout the state and shall arrange to hold schools in which instruction shall be given in soil fertility, stock-raising, crop production, dairying, horticulture, domestic science and kindred subjects; each school shall not exceed one week in length and not more than one shall be held in any county during a year."

The first of these schools was held in Amesville, Athens County, September 6th to 11th, the sessions being from 9 A.M. to 12 and from 1 P.M. to 4 P.M.

There were between sixty and seventy students—farmers and their wives, sons and daughters—who had paid one dollar each for the week's tuition, and a number came in for part of the course who paid twenty-five cents a day.

The instructors under the supervision of Prof. A. B. Graham, Superintendent of Agricultural Extension, were Profs. Alfred Vivian, Chas. S. Plumb, V. M. Shoesmith, Vernon H. Davis, Firman E. Bear, E. D. Waid and Mrs. E. W. Foulke assisted by Mrs. E. D. Waid.

The meetings were held in the fine two-story public-school building, the class-room up-stairs being used for men, and one of the rooms for women.

At the opening of the school, Professor Graham in a short address stated briefly the object of the school, the nature of the instruction to be given and the results sought for.

In the necessarily limited space that can be given to an article of this sort, not much more than bare mention can be made of the lectures, and that is given to afford the reader an intelligent idea of the nature and scope of the work done.

The first lecture given was by Professor Bear, on "Composition of Corn-Plants and Food." In the corn-plant there are two hundred and seven parts of dry matter and seven hundred and ninety-three of water in one thousand parts. It takes three hundred pounds of water to make one pound of dry matter, so that it needs plenty of water. To grow one acre of corn requires eighteen-hundred tons of water, or enough to cover the ground to a depth of sixteen inches. The organic matter is composed of oxygen, hydrogen, carbon and nitrogen. Three things especially are required by the crop, nitrogen, phosphoric acid and potash. These must be obtained from the soil and if either is deficient there, it must be supplied.

Professor Vivian lectured on "Making Plant-Food Available." In the soil are large quantities of plant-food that are unavailable because it is insoluble. This can be made available by thorough tillage, proper rotation of crops, under-drainage and fertilization. One source of decreased fertility is absence of organic matter in the soil. Under-drainage makes soil deeper, lighter and warmer.

In the afternoon Professor Vivian lectured on "How Plants Grow." Referring to the decline of horticulture in Athens County, he said that fruit-growers had not been observant or attentive enough and had failed to successfully fight the foes of the orchard—insects, bacteria and fungi. The structure of plants and the fundamental principles of their growth were described. All cultivation of trees should tend to production of good leaf surface, as only in the leaves are the elements converted into organic matter for plant tissue.

Professor Waid lectured on "Corn." It is the greatest of the three great crops native to America. It is the most valuable of all. It is used in the manufacture of more than one hundred and twenty-five different articles. The five distinct types of corn have all been developed from one in which each grain is surrounded by a husk. Select seed at husking-time, or better, when standing in the field. Try it for germinating power before planting.

Mrs. Foulke lectured on "Cereal Foods." She described the elements in food which build up the body, repair waste and furnish energy for work, and with her assistant made and baked baking-powder biscuits and corn-bread and cooked steamed rice, using the blackboard for the exhibition of various recipes.

Tuesday morning Professor Vivian lectured on "Plants and Plant-Food." He laid emphasis on the necessity of thorough tillage and of organic matter in the soil, denounced the burning of straw or other waste, and advised their return to the soil mixed with animal excrements. A chart showed the annual value of the excrements from horses, cattle, hogs and sheep per head, and the totals for all in Ohio and the United States. Other charts showed the chemical contents and comparative value of these manures, the amount of these elements in various foods and the relative value of manures from different foods, etc.

Professor Shoesmith also lectured on "Corn," using a number of ears of dent corn and a blackboard copy of a score-card to aid him in his descriptive remarks.

Fig. 1—A Neglected Apple-Tree Used for a Pruning Demonstration at the Agricultural Extension School at Amesville, Ohio

Mrs. Foulke lectured on "Digestion," describing the processes of assimilation and nutrition, the functions of the stomach and bowels and the proper preparation of food. From this she proceeded to talk on "Breads and Bread-Making," during which she made a sponge and set it away to rise.

Fig. 2—The Apple-Tree After the Pruning Demonstration

Professor Davis then gave the ladies a lecture on "Vegetables and Fruit." He spoke of the different varieties and of their importance; the heavy manuring of the garden necessary, the selection of seed and the proper cultivation of the truck-garden and orchard.

In the afternoon Professor Davis lectured on "Selecting Nursery Stock and Transplanting," he preceded his lecture by a talk on "Noxious Weeds." He advised buying direct from nurseries if possible, of which there are five hundred inspected ones in Ohio, gave instructions in planting and pruning and demonstrations in pruning young and old trees in near-by orchards.

Mrs. Foulke lectured on "Flours and Yeasts," telling of the various kinds of flour and their adaptability for bread and cake making, kneaded her dough, gave instructions in baking, told of the differences between home-made and baker's bread and baked her loaf, which was placed on exhibition.

Wednesday morning Professor Vivian lectured on "How to Get Full Value Out of Manure." He advised the saving of all stable manure by using wood, or better, cement floors, the use of plenty of absorbent material, hauling manure on land as fast as made, or keeping under cover till needed, mixing with land plaster or other preservatives. A diagram showed barn-yard manure the most valuable of all fertilizers, as better results are obtained from it at less cost than from any other. A diagram exhibiting relative loss or gain of plant-food in different kinds of farming showed the loss greatest in grain farming, less in mixed farming, while in dairy farming there was a little loss in potash and gain in phosphoric acid and nitrogen.

Professor Shoesmith gave the class instruction in corn-judging, each student having five ears of corn to grade according to points given on a score-card.

Mrs. Foulke lectured on "Vegetables." She spoke of all the common varieties, told of their various food qualities and how they should be cooked so as to make them most presentable, palatable and digestible, illustrating her remarks by cooking several varieties in different ways.

Professor Davis then gave a lecture on "The Home Made Beautiful." In this he talked of lawns and their care, trees suitable for lawns and where they should be put, of walks and artificial structures, of fences, of shrubs and of climbing plants and perennials.

In the afternoon Professor Davis lectured on "Controlling Insects and Diseases." He spoke of the various insect pests and bacteria destructive to vegetation, gave formulas for sprays and told how and when to use them, and in a near-by orchard sprayed a tree and gave lessons in budding and grafting.

Mrs. Foulke lectured on "Fatty Foods." She described the use of fat in the animal economy, when it is most needed, the most digestible forms of it in animal and vegetable products and the best ways of preparing them for food. She also talked of candies and the beverages, tea, coffee and cocoa, their properties and how to prepare them.

Thursday morning Professor Vivian lectured on "Commercial Fertilizers." These are needed to supply loss in raising crops which cannot be supplied by manures made on the farm. In the ready-mixed article, even the specials, the proportions are never correct, so farmers pay for what they do not need. They cost too much. Farmers should find out what their land needs, buy that and do their own mixing. By so doing they could save five dollars or more per ton.

Professor Shoesmith lectured on "Corn-Judging." The students, at its close, spent an hour in judging five ears of corn each. At the close of this work a lecture on the general subject of corn was given, illustrated with stereopticon views, during which the professor stated that from choice seed-corn brought in by farmers to the experiment station at Wooster, crops raised under the same conditions had varied from forty to ninety bushels per acre.

Mrs. Foulke lectured on "Meats." Aided by a diagram she described different cuts of beef as to tenderness, nutrition, cooking, etc., and spoke of the relative digestibility of the different parts and of different kinds of meat and fish.

So the instruction went on from day to day. In addition to those mentioned there were lectures on "Poultry," "Feeding Stuffs for Farm Animals," "Milk and Eggs," "Barn-Yard Manure and Commercial Fertilizers," "Home Mixing of Fertilizers," "Household Economy," "Feeds and Feeding," "Bread-Judging" and "Lime."

On Thursday, Friday and Saturday afternoons Professor Plumb gave lectures on "Horse-Judging," "Sheep-Judging" and "Cattle-Judging." These were given out of doors with the animals there, and the students marked their judgments on score-cards.

Resolutions were passed by the students expressive of their appreciation of the instruction given, hoping for another school in the future, and to request the governor of the state and members of the legislature to do everything possible for the further extension of the system.

Without any hesitation whatever the writer, with a practical experience of forty years as farmer, writer and lecturer at farmers' institutes, can heartily indorse every word in the resolutions passed, only a brief synopsis of which is here given, as to the value of these schools to farmers and their households.

Wm. J. Warrener.

Why Not the Elderberry?

In many Eastern local markets elderberries gathered from the wild bushes, especially along the banks of streams and lakes, are offered and are much in demand for pie timber.

Elderberry-pies are deservedly popular. For the stripped berries, ten cents a quart is frequently asked and willingly given. None of our cultivated berries can be gathered and prepared for use more quickly and conveniently, and the yield is immense, almost equaling the banana in the tropics.

The elderberry, as found growing wild, varies considerably in size, juiciness, etc. Some berries are small and seedy, others have fewer or smaller seeds, etc. Why is this fruit so neglected by the horticulturist?

T. Greiner.

Around the Farm

Items of Interest and Value to the Progressive Farmer

Destroying the Soil

FARM AND FIRESIDE of September 10th contained an editorial discussion of "The Garden Yard" (Bolton Hall) that calls for further argument. Your point of difference seems to center upon the statement that "Man can neither make nor destroy the land. Nature has wisely locked up in the soil itself the secret of fertility, so that one generation cannot really rob the next."

The difference is really more in seeming than in fact. All that "The Garden Yard" contends is, that it is not in the power of man to supply life, or the quality of fertility, to soil, nor yet to destroy that quality. This is inherent in the soil itself, just as the life is inherent in the seed, and the most that man can do is to provide a proper environment for the best development of that life. He cannot supply it.

"The Garden Yard" makes no claim that soil washed away by erosion is not lost to man, but it has not, therefore, lost its quality of fertility if it could be gathered together again and given a permanent resting-place. The chapter on "Re-soiling" clearly states that the word is in itself a misnomer, when not used in the sense of carrying soil to a place where none remains, but rather to convey the idea that man can create "fertility" in soil that lacks it. By intelligent treatment and conservation, man can at best but unlock the fertility which, in varying degree, is a quality of all soil. The abandoned farms of New England have proved to be anything but "exhausted" when intelligent cultivation has been applied to them. Yet they were badly used for generations, and abandoned because no longer "fertile."

Perhaps there may be no more cause for real worriment over the exhaustion of phosphate than there was over the exhaustion of nitrogen. It is the custom of scientists to raise a loud wail about the failure of all natural supplies, even while they are seeking a substitute that shall serve as well or better. They thus do humanity a service, in that they lead men to conserve their resources; but some way out is always found. "Seedtime and harvest shall not fail" is as true as it ever was, and is likely to remain so.

The new agriculture is but in its infancy yet, and no man can tell, with any degree of certainty, how close upon the eve of great discoveries we may even now be—discoveries that may make our present uneasiness over the failure of Nature's resources seem puerile and contemptible. Now that we see the end of our coal-supplies in a few hundred years, we are beginning to learn what can be done with water-power, the fuel of the future. It seems as if most of these natural resources were loaned man for a few centuries just to stimulate him to make more and more amazing discoveries.

Many scientists are now prophesying the failure of this country, in two and a half centuries, to support the population it will then have. Yet some of us know —and our number is steadily increasing —that even with our limited knowledge of agriculture, the state of Texas alone could support ten times the whole present population of the United States, provided that speculation in land were destroyed by the simple means of taking the full rental value of all land for public purposes.

"The Garden Yard" was written with helpful intent, and any discussion of its statements that may tend to bring out new points of view must necessarily prove valuable to both author and reader. For this reason FARM AND FIRESIDE has but added to its own usefulness in treating its readers to the able and interesting editorial entitled "Destroying the Soil." E. M. MURRAY.

Learn by Traveling

A SHORT time ago I passed through the lower part of the province of Ontario in Canada and could not help admiring the general neatness of the farms and the comfortable farm homes. All the fields were plowed in narrow lands as straight as an arrow and were remarkably clear of weeds and brush. The pastures were clean and in excellent condition. It appeared like every farmer was desirous of utilizing every foot of land in the production of something of value in the way of grain, roots or grass. Not much stock was visible, but what there was to be seen was apparently well-bred and in excellent condition.

I also passed through a part of southern Michigan and northern Ohio, and noted that there was the same general appearance of neatness and thrift, with very few brushy corners or shaky-looking buildings. In northern Ohio I noticed that many of the farmers still cling to the old, old method of plowing fields by going entirely around them. This manner of plowing is also very prevalent in Indiana.

In all things except this one these Ohio and Indiana farmers seem to be up to date. Why they should cling to this way-back method of plowing with its multiplicity of short turns and high ridge around the outside of the field is a mystery.

I long ago learned that cutting the field, even if it be small or irregular, into lands is far the best method of plowing. Our usual method is to back furrow about ten or fifteen rounds, then finish the strip, which is about ten rounds wide. There is no stopping to turn except in the first two or three rounds, and the last two or three. The horses keep moving right along as the plow is lifted and dropped again. The next year the furrows are the centers or ridges, and the land is thus kept level. On low, wet land that is slow to drain, the lands are made thirty or forty feet wide and always plowed toward the ridge, leaving rather deep center furrows to carry off the water quickly. This is the best method of surface-draining wet land, and I have seen good crops grown on such land plowed in this way, where nothing could be grown were it plowed level. Farmers with open eyes can learn lots of things by traveling about the country a little.

Thousands of men go about the country and here and there, riding in Pullman or parlor cars with their backs to the window and a newspaper or magazine before them, and learn no more about the character of the country through which they pass than if they remained at home. I have frequently marveled at this seemingly utter lack of interest, on the part of well-dressed travelers, in the ever-changing scenery sweeping past. For enlightenment I ventured a short time ago to work myself into the good graces of a somewhat swell person and learn why he never deigned to glance out of the window. In passing him I noted the caption of the article which seemed to absorb his attention, and at the psychological moment I made a remark that caught him at once. In a few minutes I called his attention to two men who sat in front with their chairs turned toward the window and who appeared to be very much interested in the country we were passing through.

"Evidently they are people who have traveled very little," he sniffed. "Farmers and people who go about very little invariably gaze out of the windows most of the time. I presume they are interested in what they term the lay of the land and the crops. For my part I rarely glance out of the car-window. One part of the country is so nearly like another that there is nothing to interest one. You will observe that the most cultured people are much more interested in good reading than in farms and villages."

Some years ago a noted story-writer produced a very interesting novel, locating the homes of the hero and several heroines in a very uninteresting section of the country. In passing through that state, all who had read the novel took the railroad leading through that particular section to see the "pretty groves, rivers and villages," where the said heroes and heroines lived and rambled. As the trains ran through, the porters pointed out the farm homes where these imaginary people lived, the groves where they picnicked and the river in which one beautiful girl drowned herself because the hero had forsaken her for another, and the interest would be most intense, especially among the lady passengers.

If railroad companies would engage some rattling good writer to dish up something intensely interesting about the country and villages through which their roads run, there would be a wide-awake lot of passengers pointing out and marveling at the various objects described. Of course there would have to be considerable romance "founded on fact" mixed up with it. Distributed in booklet form it would be vastly more interesting than the long enigmatical time-tables which many people carry to convey the impression that they are going a great distance. FRED GRUNDY.

Cold-Frames and Their Management

COLD-FRAMES are used quite extensively to winter plants which are started early in the fall. Another purpose is to further the growth of plants after they have been started in the hotbed or greenhouse. We use the frames for the latter purpose aside from wintering a few thousand pansy-plants.

The cold-frame is simply constructed on top of the ground without using manure or other material to furnish heat. It is a great advantage to transplant at least once before setting the plants in the field. This encourages the development of a strong, stocky plant with a fine root system.

There is no particular time at which transplanting should be done, but it should never be delayed until the plants are weak and spindly. We generally begin in about four weeks from the date of sowing. When the plants are started in the greenhouse, where we have perfect control of the heat and moisture, it is possible to hold seedlings of cabbages and even tomatoes for a period of six weeks without detriment to the plants. This is not possible with hotbeds and there should be no delay in the first transplanting. If a large number of plants are to be handled, it is better to begin too soon than too late.

It should be kept in mind that the more space we allow the plants in the frames the more favorable conditions will be for the development of strong plants. My practice is to plant cauliflower, lettuce, cabbages and tomatoes one and one half inches apart each way. Planting at this distance, a sash will cover about one thousand plants. If a limited number of plants are to be grown, it will be still better to allow two inches between the plants in the frame and it will enable the grower to transfer plants to the field with a larger amount of soil and manure attached to the roots.

Tomato-plants should be transplanted twice to get the best results, allowing one and one half inches at first transplanting and from three to five inches at the second shift.

Any good garden loam will answer the purpose for transplanting. Our practice here in Atlantic County, New Jersey, is to use a compost of good field soil and well-decayed manure, or at least manure which is free from weed-seeds and long straw. Two parts of soil and one of manure, adding a little bone-meal, will do well for all vegetable plants started under glass. A thin layer of rotten manure is first placed in the bottom of the flats so that the plants can be removed when planting in the field with the greatest possible amount of soil and manure attached to the roots. In raising early vegetables this is an important element, as the plants will stand the shock of transplanting much better if all the soil is not stripped from the roots.

Before beginning to transplant, fill all the flats within one inch of the top with the compost described and then make it level full with rich, loamy soil that has been sifted. See that the soil is well firmed over the entire box and smoothed with a straight edge.

Now we are ready for the planting-board. This is made by cleating together two pieces of boards so that they will cover the flat. If we want to transplant one and one half inches apart each way, take the square, mark off the board in check rows this distance apart and bore holes with a three-quarter-inch bit where the lines cross. After boring the holes place the board on top of the filled flat and with a dibble, which works freely, punch a hole in the soil under each hole. After a little practice one boy will make these holes as fast as three men can plant. A little boy can drop the plants and larger boys can fasten them. It is also important to have the soil just right so far as moisture is concerned, and the holes the proper depth, which will depend on the size of the plants. The depth of the holes may be regulated by making a shoulder on the dibble which prevents it from protruding more than a certain distance through the planting-board.

If the soil contains the proper amount of moisture to facilitate the most rapid planting, watering after transplanting will not be necessary for at least two days. If there are dry spots they should be watered and then the flats set in the cold-frames.

If the transplanting is done in early March, which will be the case with cabbages and lettuce, there will likely be severe weather and it is necessary to make provision for the protection of the plants at night as well as through the day in very cold weather. Mats of woolen or cotton are the best protection if the frames are properly banked with soil.

No air should be admitted for about one week after the plants have been placed in frames. This will give the plants the proper condition of moisture, while if the air is admitted the plants will wilt and be slow about starting new roots. After some new roots are started and the plants begin to grow, plenty of air must be admitted to prevent the plants from becoming spindly. Watering should be attended to daily except in damp, cloudy weather. Keep the soil moist, but not soaked.

Plants should be well hardened before setting in the field. There is no danger of getting cabbages in the field too early if the plants have been properly hardened in the frames. The hardening process consists in giving free ventilation followed by no protection during the day, and by leaving off the mats at night and finally giving the plants full exposure to the air, both day and night, when it is not very cold. The hardening process cannot be carried so far with tomatoes, and yet some hardening is important. Limiting the amount of water will do more toward preparing tomato-plants for light frosts than anything else. The leaves of well-hardened cabbage-plants should have a reddish tint.

The evening before you wish to begin transplanting give the flats a thorough soaking. The flats are hauled to the field and distributed at a convenient distance. The plants are removed by standing the flats on edge, by jarring on the ground, and by slipping one hand under the soil in one corner of the box. The soil which has become matted with roots may be broken like a layer-cake and each plant removed with quite a piece of the compost attached to the roots of the plants.

New Jersey. C. A. UMOSELLE.

New Saws and Fresh Filings for Farmers

Display your best work.

The better the road, the shorter the mile.

A bad mail-box is an eyesore on any route.

Self-possessed people possess more than themselves.

Some men never complain because they cannot find work.

It is easy to buy on time, but hard to pay when the time comes.

A stretch of good road now and then, is relished by all farmer men.

The average farmer enjoys coming from town more than going in.

Nobody ever has so much spare time that he feels he has any to spare.

The convenient height for the mail-box is on the level with the breast.

Any deal that is as broad on your side as it is long on the other must be on the square.

The prosperity which we cannot enjoy with our neighbors, or those who helped bring it on, is only half enjoyed.

The farmer has always seen the need of good roads, but it has taken a long time to get the others interested.

It is not necessary to lock your mail-box—and it saves the carrier time. He is anxious to maintain a good schedule. So are you.

No matter how busy we are, we always have time to prevent moral weeds from growing in the fence-corners of our character.

To maintain a rural route it costs Uncle Sam about nine hundred dollars, for which he expects sufficient patronage to enable the carrier to count three thousand pieces per month.

Many farmers regulate the drain on their meadows by keeping the cows there through the day, while the horses are at work, and the horses there through the night, while the cows are at home in the lot. This is a sort of perpetual motion around and over the pasture.

WM J. BURTSCHER.

Around the Farm

Items of Interest and Value to the Progressive Farmer

Amid Abundance—Save!

AUTUMN and the early winter is the ideal season of the whole year for saving on the farm, and the farmer who has learned well how to practise this economy, is pretty apt to be successful.

Most products of the farm, especially those which could be stored, are then lower in price than at any other season, and nine out of every ten farmers are too short-sighted to see the wisdom of storing these plentiful products, but simply allow them to lie around and waste.

Many farmers, when they begin to feed their live stock grain and roughage during the winter, toss them out as though there were no end to the supply. The stock eat the very choicest of it, trample the rest underfoot, and refuse to eat any more of it after it once has been minced over. Here we have the detrimental influences on the digestive organs of the live stock caused by overfeeding, a useless waste, and the liability of having to buy high-priced feed later on.

Feed liberal enough to keep all the stock in fit condition to withstand the rigors of winter, but don't be so wasteful simply because you seem to have an abundance of feed now. Let the animals have just enough, so that they will pick everything up clean. It will require very little observation to ascertain pretty accurately the correct quantity each herd can properly consume, and the benefit to the stock, together with the profits derived from the disposal of any surplus supplies on hand in the spring, will repay manifold for the small amount of attention given this most important point in connection with winter feeding.

Besides, there are many other items of saving one will find it profitable to remember, but which the average farmer neglects from year to year. One usually has considerable cabbage left after the winter's supply of kraut is made. These heads may be stored in large quantities at no expense, and profitably fed to poultry, cattle and sheep during the winter, thus not only saving grain and roughage, but supplying a green feed so much relished by both flock and herd at that season. Sunflower-leaves, forest leaves, old hay, straw or even weeds—anything of a like nature that is clean and dry—may be utilized for spreading in the fruit or vegetable pit, which will mean a saving of high-priced hay. Small potatoes, usually discarded altogether at digging-time, should be carefully stored. Cooked in sweet milk, they make an excellent mash for laying hens. Or, they may be fed to hogs. Cane heads clipped from the sorghum-patch, all kinds of surplus garden and sunflower seeds may be saved, and occasionally added to the poultry ration. A handful of sunflower-seeds, fed daily to each animal, also forms an efficient regulator for the horses, cattle and hogs.

Space permits us to point out only a few of the many chances of economy presented to the farmer at this time of year, but these are mentioned with the hope that you will look around you, and get busy in saving from the orchard, truck-patch, garden and field while the opportunity is afforded. One need not be afraid of saving too much of all these articles, since it is practically without expense that he may save what is already produced; and if more is stored than possibly can be consumed on his own farm, there is almost sure to be a ready and profitable sale for any surplus he may have on hand in late winter or early spring, as not one farmer in twenty-five deems it worth while to pay any attention to the small items of saving in the fall. Yet, it is these many numerous little items of economy that sum up a handsome total in profits or the "thousand and one" small and seemingly insignificant wastes that drain a man's purse and send him to the wall. Indeed, we believe that during this season there is more done toward bringing about a man's failure or success in the great agricultural world than at any other season in the entire year.

M. A. COVERDELL.

Good Plowing

SOME farmers seem to think that any sort of plowing is all right if they get the ground turned over in fair shape. And it will do, in a way, but it surely is not the best way. An enterprising and thorough-going farmer will ever seek to accomplish his work in the best possible manner, and will be content with nothing that falls below this ideal.

A good deal of plowing is done in a careless and slovenly way. The furrows are not turned evenly, and the surface is left full of irregularities. Of course the disk-harrow is counted on to obliterate these and put the soil in a smooth and even condition. But the slouchy work in the first place is evidence of carelessness, and is, to say the least, not conductive to a comfortable feeling of self-respect. A man can hardly feel dignified with clean socks on a pair of dirty feet.

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Around the Farm

Items of Interest and Value to the Progressive Farmer

Destroying the Soil

FARM AND FIRESIDE of September 10th contained an editorial discussion of "The Garden Yard" (Bolton Hall) that calls for further argument. Your point of difference seems to center upon the statement that "Man can neither make nor destroy the land. Nature has wisely locked up in the soil itself the secret of fertility, so that one generation cannot really rob the next."

The difference is really more in seeming than in fact. All that "The Garden Yard" contends is, that it is not in the power of man to supply life, or the quality of fertility, to soil, nor yet to destroy that quality. This is inherent in the soil itself, just as the life is inherent in the seed, and the most that man can do is to provide a proper environment for the best development of that life. He cannot supply it.

"The Garden Yard" makes no claim that soil washed away by erosion is not lost to man, but it has not, therefore, lost its quality of fertility if it could be gathered together again and given a permanent resting-place. The chapter on "Re-soiling" clearly states that the word is in itself a misnomer, when not used in the sense of carrying soil to a place where none remains, but rather to convey the idea that man can create "fertility" in soil that lacks it. By intelligent treatment and conservation, man can at best but unlock the fertility which, in varying degree, is a quality of all soil. The abandoned farms of New England have proved to be anything but "exhausted" when intelligent cultivation has been applied to them. Yet they were badly used for generations, and abandoned because no longer "fertile."

Perhaps there may be no more cause for real worriment over the exhaustion of phosphate than there was over the exhaustion of nitrogen. It is the custom of scientists to raise a loud wail about the failure of all natural supplies, even while they are seeking a substitute that shall serve as well or better. They thus do humanity a service, in that they lead men to conserve their resources; but some way out is always found. "Seedtime and harvest shall not fail" is as true as it ever was, and is likely to remain so.

The new agriculture is but in its infancy yet, and no man can tell, with any degree of certainty, how close upon the eve of great discoveries we may even now be—discoveries that may make our present uneasiness over the failure of Nature's resources seem puerile and contemptible. Now that we see the end of our coal-supplies in a few hundred years, we are beginning to learn what can be done with water-power, the fuel of the future. It seems as if most of these natural resources were loaned man for a few centuries just to stimulate him to make more and more amazing discoveries.

Many scientists are now prophesying the failure of this country, in two and a half centuries, to support the population it will then have. Yet some of us know —and our number is steadily increasing —that even with our limited knowledge of agriculture, the state of Texas alone could support ten times the whole present population of the United States, provided that speculation in land were destroyed by the simple means of taking the full rental value of all land for public purposes.

"The Garden Yard" was written with helpful intent, and any discussion of its statements that may tend to bring out new points of view must necessarily prove valuable to both author and reader. For this reason FARM AND FIRESIDE has but added to its own usefulness in treating its readers to the able and interesting editorial entitled "Destroying the Soil." E. M. MURRAY.

Learn by Traveling

A SHORT time ago I passed through the lower part of the province of Ontario in Canada and could not help admiring the general neatness of the farms and the comfortable farm homes. All the fields were plowed in narrow lands as straight as an arrow and were remarkably clear of weeds and brush. The pastures were clean and in excellent condition. It appeared like every farmer was desirous of utilizing every foot of land in the production of something of value in the way of grain, roots or grass. Not much stock was visible, but what there was to be seen was apparently well-bred and in excellent condition.

I also passed through a part of southern Michigan and northern Ohio, and noted that there was the same general appearance of neatness and thrift, with very few brushy corners or shaky-looking buildings. In northern Ohio I noticed that many of the farmers still cling to the old, old method of plowing fields by going entirely around them. This manner of plowing is also very prevalent in Indiana.

In all things except this one these Ohio and Indiana farmers seem to be up to date. Why they should cling to this way-back method of plowing with its multiplicity of short turns and high ridge around the outside of the field is a mystery.

I long ago learned that cutting the field, even if it be small or irregular, into lands is far the best method of plowing. Our usual method is to back furrow about ten or fifteen rounds, then finish the strip, which is about ten rounds wide. There is no stopping to turn except in the first two or three rounds, and the last two or three. The horses keep moving right along as the plow is lifted and dropped again. The next year the furrows are the centers or ridges, and the land is thus kept level. On low, wet land that is slow to drain, the lands are made thirty or forty feet wide and always plowed toward the ridge, leaving rather deep center furrows to carry off the water quickly. This is the best method of surface-draining wet land, and I have seen good crops grown on such land plowed in this way, where nothing could be grown were it plowed level. Farmers with open eyes can learn lots of things by traveling about the country a little.

Thousands of men go about the country and here and there, riding in Pullman or parlor cars with their backs to the window and a newspaper or magazine before them, and learn no more about the character of the country through which they pass than if they remained at home. I have frequently marveled at this seemingly utter lack of interest, on the part of well-dressed travelers, in the ever-changing scenery sweeping past. For enlightenment I ventured a short time ago to work myself into the good graces of a somewhat swell person and learn why he never deigned to glance out of the window. In passing him I noted the caption of the article which seemed to absorb his attention, and at the psychological moment I made a remark that caught him at once. In a few minutes I called his attention to two men who sat in front with their chairs turned toward the window and who appeared to be very much interested in the country we were passing through.

"Evidently they are people who have traveled very little," he sniffed. "Farmers and people who go about very little invariably gaze out of the windows most of the time. I presume they are interested in what they term the lay of the land and the crops. For my part I rarely glance out of the car-window. One part of the country is so nearly like another that there is nothing to interest one. You will observe that the most cultured people are much more interested in good reading than in farms and villages."

Some years ago a noted story-writer produced a very interesting novel, locating the homes of the hero and several heroines in a very uninteresting section of the country. In passing through that state, all who had read the novel took the railroad leading through that particular section to see the "pretty groves, rivers and villages," where the said heroes and heroines lived and rambled. As the trains ran through, the porters pointed out the farm homes where these imaginary people lived, the groves where they picnicked and the river in which one beautiful girl drowned herself because the hero had forsaken her for another, and the interest would be most intense, especially among the lady passengers.

If railroad companies would engage some rattling good writer to dish up something intensely interesting about the country and villages through which their roads run, there would be a wide-awake lot of passengers pointing out and marveling at the various objects described. Of course there would have to be considerable romance "founded on fact" mixed up with it. Distributed in booklet form it would be vastly more interesting than the long enigmatical time-tables which many people carry to convey the impression that they are going a great distance. FRED GRUNDY.

Cold-Frames and Their Management

COLD-FRAMES are used quite extensively to winter plants which are started early in the fall. Another purpose is to further the growth of plants after they have been started in the hotbed or greenhouse. We use the frames for the latter purpose aside from wintering a few thousand pansy-plants.

The cold-frame is simply constructed on top of the ground without using manure or other material to furnish heat. It is a great advantage to transplant at least once before setting the plants in the field. This encourages the development of a strong, stocky plant with a fine root system.

There is no particular time at which transplanting should be done, but it should never be delayed until the plants are weak and spindly. We generally begin in about four weeks from the date of sowing. When the plants are started in the greenhouse, where we have perfect control of the heat and moisture, it is possible to hold seedlings of cabbages and even tomatoes for a period of six weeks without detriment to the plants. This is not possible with hotbeds and there should be no delay in the first transplanting. If a large number of plants are to be handled, it is better to begin too soon than too late.

It should be kept in mind that the more space we allow the plants in the frames the more favorable conditions will be for the development of strong plants. My practice is to plant cauliflower, lettuce, cabbages and tomatoes one and one half inches apart each way. Planting at this distance, a sash will cover about one thousand plants. If a limited number of plants are to be grown, it will be still better to allow two inches between the plants in the frame and it will enable the grower to transfer plants to the field with a larger amount of soil and manure attached to the roots.

Tomato-plants should be transplanted twice to get the best results, allowing one and one half inches at first transplanting and from three to five inches at the second shift.

Any good garden loam will answer the purpose for transplanting. Our practice here in Atlantic County, New Jersey, is to use a compost of good field soil and well-decayed manure, or at least manure which is free from weed-seeds and long straw. Two parts of soil and one of manure, adding a little bone-meal, will do well for all vegetable plants started under glass. A thin layer of rotten manure is first placed in the bottom of the flats so that the plants can be removed when planting in the field with the greatest possible amount of soil and manure attached to the roots. In raising early vegetables this is an important element, as the plants will stand the shock of transplanting much better if all the soil is not stripped from the roots.

Before beginning to transplant, fill all the flats within one inch of the top with the compost described and then make it level full with rich, loamy soil that has been sifted. See that the soil is well firmed over the entire box and smoothed with a straight edge.

Now we are ready for the planting-board. This is made by cleating together two pieces of boards so that they will cover the flat. If we want to transplant one and one half inches apart each way, take the square, mark off the board in check rows this distance apart and bore holes with a three-quarter-inch bit where the lines cross. After boring the holes place the board on top of the filled flat and with a dibble, which works freely, punch a hole in the soil under each hole. After a little practice one boy will make these holes as fast as three men can plant. A little boy can drop the plants and larger boys can fasten them. It is also important to have the soil just right so far as moisture is concerned, and the holes the proper depth, which will depend on the size of the plants. The depth of the holes may be regulated by making a shoulder on the dibble which prevents it from protruding more than a certain distance through the planting-board.

If the soil contains the proper amount of moisture to facilitate the most rapid planting, watering after transplanting will not be necessary for at least two days. If there are dry spots they should be watered and then the flats set in the cold-frames.

If the transplanting is done in early March, which will be the case with cabbages and lettuce, there will likely be severe weather and it is necessary to make provision for the protection of the plants at night as well as through the day in very cold weather. Mats of wool-en or cotton are the best protection if the frames are properly banked with soil.

No air should be admitted for about one week after the plants have been placed in frames. This will give the plants the proper condition of moisture, while if the air is admitted the plants will wilt and be slow about starting new roots. After some new roots are started and the plants begin to grow, plenty of air must be admitted to prevent the plants from becoming spindly. Watering should be attended to daily except in damp, cloudy weather. Keep the soil moist, but not soaked.

Plants should be well hardened before setting in the field. There is no danger of getting cabbages in the field too early if the plants have been properly hardened in the frames. The hardening process consists in giving free ventilation followed by no protection during the day, and by leaving off the mats at night and finally giving the plants full exposure to the air, both day and night, when it is not very cold. The hardening process cannot be carried so far with tomatoes, and yet some hardening is important. Limiting the amount of water will do more toward preparing tomato-plants for light frosts than anything else. The leaves of well-hardened cabbage-plants should have a reddish tint.

The evening before you wish to begin transplanting give the flats a thorough soaking. The flats are hauled to the field and distributed at a convenient distance. The plants are removed by standing the flats on edge, by jarring on the ground, and by slipping one hand under the soil in one corner of the box. The soil which has become matted with roots may be broken like a layer-cake and each plant removed with quite a piece of the compost attached to the roots of the plants.

New Jersey. C. A. UMOSELLE.

New Saws and Fresh Filings for Farmers

Display your best work.

The better the road, the shorter the mile.

A bad mail-box is an eyesore on any route.

Self-possessed people possess more than themselves.

Some men never complain because they cannot find work.

It is easy to buy on time, but hard to pay when the time comes.

A stretch of good road now and then, is relished by all farmer men.

The average farmer enjoys coming from town more than going in.

Nobody ever has so much spare time that he feels he has any to spare.

The convenient height for the mail-box is on the level with the breast.

Any deal that is as broad on your side as it is long on the other must be on the square.

The prosperity which we cannot enjoy with our neighbors, or those who helped bring it on, is only half enjoyed.

The farmer has always seen the need of good roads, but it has taken a long time to get the others interested.

It is not necessary to lock your mail-box—and it saves the carrier time. He is anxious to maintain a good schedule So are you.

No matter how busy we are, we always have time to prevent moral weeds from growing in the fence-corners of our character.

To maintain a rural route it costs Uncle Sam about nine hundred dollars, for which he expects sufficient patronage to enable the carrier to count three thousand pieces per month.

Many farmers regulate the drain on their meadows by keeping the cows there through the day, while the horses are at work, and the horses there through the night, while the cows are at home in the lot. This is a sort of perpetual motion around and over the pasture.

WM J BURTSCHER

Around the Farm

Items of Interest and Value to the Progressive Farmer

Amid Abundance—Save!

AUTUMN and the early winter is the ideal season of the whole year for saving on the farm, and the farmer who has learned well how to practise this economy, is pretty apt to be successful.

Most products of the farm, especially those which could be stored, are then lower in price than at any other season, and nine out of every ten farmers are too short-sighted to see the wisdom of storing these plentiful products, but simply allow them to lie around and waste.

Many farmers, when they begin to feed their live stock grain and roughage during the winter, toss them out as though there were no end to the supply. The stock eat the very choicest of it, trample the rest underfoot, and refuse to eat any more of it after it once has been minced over. Here we have the detrimental influences on the digestive organs of the live stock caused by overfeeding, a useless waste, and the liability of having to buy high-priced feed later on.

Feed liberal enough to keep all the stock in fit condition to withstand the rigors of winter, but don't be so wasteful simply because you seem to have an abundance of feed now. Let the animals have just enough, so that they will pick everything up clean. It will require very little observation to ascertain pretty accurately the correct quantity each herd can properly consume, and the benefit to the stock, together with the profits derived from the disposal of any surplus supplies on hand in the spring, will repay manifold for the small amount of attention given this most important point in connection with winter feeding.

Besides, there are many other items of saving one will find it profitable to remember, but which the average farmer neglects from year to year. One usually has considerable cabbage left after the winter's supply of kraut is made. These heads may be stored in large quantities at no expense, and profitably fed to poultry, cattle and sheep during the winter, thus not only saving grain and roughage, but supplying a green feed so much relished by both flock and herd at that season. Sunflower-leaves, forest leaves, old hay, straw or even weeds—anything of a like nature that is clean and dry—may be utilized for spreading in the fruit or vegetable pit, which will mean a saving of high-priced hay. Small potatoes, usually discarded altogether at digging-time, should be carefully stored. Cooked in sweet milk, they make an excellent mash for laying hens. Or, they may be fed to hogs. Cane heads clipped from the sorghum-patch, all kinds of surplus garden and sunflower seeds may be saved, and occasionally added to the poultry ration. A handful of sunflower-seeds, fed daily to each animal, also forms an efficient regulator for the horses, cattle and hogs.

Space permits us to point out only a few of the many chances of economy presented to the farmer at this time of year, but these are mentioned with the hope that you will look around you, and get busy in saving from the orchard, truck-patch, garden and field while the opportunity is afforded. One need not be afraid of saving too much of all these articles, since it is practically without expense that he may save what is already produced; and if more is stored than possibly can be consumed on his own farm, there is almost sure to be a ready and profitable sale for any surplus he may have on hand in late winter or early spring, as not one farmer in twenty-five deems it worth while to pay any attention to the small items of saving in the fall. Yet, it is these many numerous little items of economy that sum up a handsome total in profits or the "thousand and one" small and seemingly insignificant wastes that drain a man's purse and send him to the wall. Indeed, we believe that during this season there is more done toward bringing about a man's failure or success in the great agricultural world than at any other season in the entire year.

M. A. COVERDELL.

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Let the Crops Pay For Your Home In the Famous Bow River Valley of

Sunny Southern Alberta

Own a 40 to 160-Acre Rich Farm

On Our New, Guaranteed-Crop-Payment Plan

Only $1.80 to $3.00 Per Acre Down—The Balance To Be Paid For Out of Your Crops By Agreement of "No Crops—No Pay"—We Will Put In First Crop—You Harvest the Profits.

EVERY country or city man or woman, whose practical home-making desire and practical investment judgment make them watchful for a lifetime opportunity should read all of this offer—then call, or write at once for **FIVE FREE BOOKS**, and thoroughly investigate all the facts.

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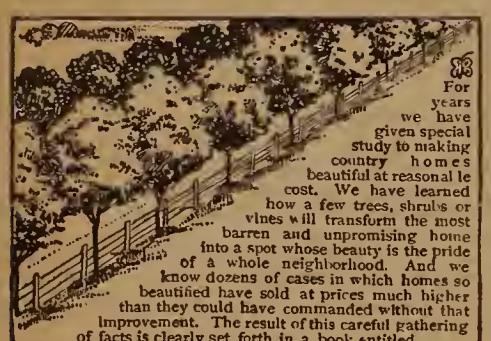

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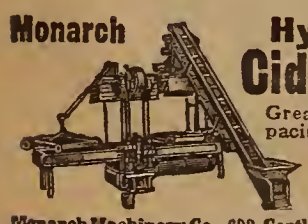

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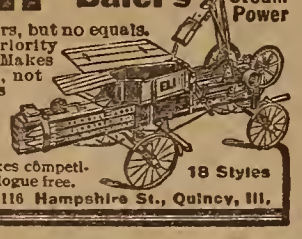

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Gardening

By T. Greiner

Cleaning Pulpy Seeds

Some of our garden-seeds, as, for instance, tomato, cucumber, etc., are enveloped in a tough pulp that sticks closely to them, and many home gardeners find it difficult to get them clean. Nothing can be easier. Leave such seeds for a while in their own juice to ferment, and the pulp will get detached, and can be floated off in washing. I make use of this practice for tomato, melon, cucumber and egg-plant seeds. They are scraped out into a crock or other receptacle, allowed to stand for three or four days or even a week, and then thrown into a larger vessel partly filled with water. The good seeds sink to the bottom, and the poor ones with the pulp float and may be emptied out, leaving the good seeds in the bottom. Wash through several waters, screen and dry in a warm place or in the sun.

Celery Results

No postponement on account of weather! No failure on account of drought. That seems to be the celery situation. We always thought celery was just the crop that needed water, and the one to suffer first for the lack of it. Yet we have had fairly good White Plume, board-blanched, for some weeks and, in fact, really earlier than in previous years, and this even without a drop of water used on the plants at any time. The plants were small, cold-frame-grown, transplanted seedlings, set in open ground late in May, and had no extra or unusual care.

Boards were put on early in August. These boards were twelve inches wide and of various lengths. No water was applied to the part of patch where the first celery was taken up for the table. The hot and dry weather, however, made the stalks tougher and stronger in flavor than we had them in seasons of ordinary rainfall.

A part of the patch had been watered three times, about twenty-five gallons being applied each time to about forty feet of row. This, of course, is equal to a good soaking. The growth in this irrigated part was materially increased, and the stalks sweeter and decidedly more brittle, lacking the peculiar strong celery flavor of the other. This is what water does. But a few good rainfalls would undoubtedly have given us celery of even better quality.

All my later patches are making exceedingly strong growth, about as strong as in other years. If we have rain soon, and enough of it, I believe we shall have the same thrifty growth of sweet and brittle stalks that we had last year.

Rhubarb-Forcing

The rhubarb season is finally over, the soil is still dry, and the plants have ceased to grow. What leaves are still on the plants are wilted and half dead. It is not likely that they will make renewed growth this fall. New beds, however, may be made any time during the dormant season. I shall wait until rains soften up and moisten the ground. Then some of the old clumps will be taken up, divided into four or six pieces each, and replanted in good, well-prepared soil where they have good drainage.

It is true we have canned a lot of rhubarb for winter, and it comes very handy at that time for pies and sauce; but our forced rhubarb is far superior to it, in fact more tender and of finer flavor than the best stalks as we get them from outdoors in early spring.

Old clumps are taken up and left outdoors until they have had a chance to freeze. After that they may be planted, closely together, on a damp cellar bottom, or under a greenhouse bench, or in any spot where they can be buried to the same depth in soil as they stood outdoors, kept a little warm and protected from the light. We always enjoy our winter rhubarb greatly. A shed, without glass roof, may be fixed up for the purpose of forcing rhubarb but it will have to be artificially warmed in order to produce a crop during cold winter weather.

Dry-Weather Effects

The abnormally dry season still continues. As a consequence we have later tomatoes and a greatly reduced yield, a very small crop of potatoes, practically a failure of late sweet corn, and a bad outlook for fall spinach, cattle beets, etc. Our tomatoes are fine, and what surplus we have to sell goes quickly at much higher than the usual prices. In some other things, also, the higher price this year makes up to some extent for the decreased yield; but our cattle will miss some of the big messes of mangels next winter, that they always had in previous years, and many a housewife will not have the usual free supply of many vegetables during the winter and spring months before us.

Cucumber pickles are especially scarce, and are now bringing forty cents a hundred, or two to four times the figures of previous years. Melons are small and few to the vine, less than half a crop, perhaps not over a quarter crop. The soil, too, on which they were planted, is just as rich and generally in as good condition as where I had them last year, and where they completely covered the ground with dark green foliage, and were strewn so thickly over the surface that in many cases three, four or five big melons were touching each other. They also sell for an unusually high price in our markets. But when you don't have them, the high prices do you no good. As buyers, of course, we would not enjoy such prices a bit. In any event, however, we will not feast on melons to the same extent that we did last year, or the years before. We look forward for better luck and a resumed feast next year. That is at least some consolation.

Starting Egg-Plants and Egg-Plant Seed

I always try to raise my own plants of egg-plant. To do that we must have good seed. The latter does not keep its vitality very many years, hardly more than two. I feel safest with strictly fresh seed. My practice is to leave a good specimen of the earliest setting on each of one or two of the best plants, and let these get perfectly ripe.

The ripening stage is indicated by the glossy, purple color turning to a duller shade, with yellowish tinge. Then at any convenient time in the fall I cut these to pieces, peeling away all the pulp that contains no seeds, and mashing the seedy parts with a potato-masher or similar tool or macerating them in any convenient way, then leaving the mass in a crock or other receptacle to ferment, and finally washing the seeds out in the same way as we clean tomato-seeds. Use plenty of water to float off the pulp, leaving the good and clean seeds in the bottom. Dry them at once and store in a paper bag with other seeds. The probability is that you will not need very many seeds, and one specimen of egg will give you a good many more than you want.

For plants I sow seeds in flats in March. But don't imagine they will start readily in the same heat that is required for tomatoes. Ten degrees higher is about right. I usually place the flats, newly sown, on the hot-water pipes under the benches until the plants begin to break ground. They are then taken out and placed on the warmest part of the bench, and afterward set out singly in plant pots or boxes or in flats giving each plant about two and a half or three inches square each way. The soil for such pots, boxes or flats should be a rich fibrous loam, richer than for tomatoes.

Improvement by Seed-Selection

I have this year planted tomatoes of the Earliana type from seed obtained through the regular seed-trade channels in the same patch with plants of the same varieties grown from seed bred and selected by myself. My own are by far the better. Every grower can easily duplicate this experience. Select specimens from the best plant—the plant which gives you just the tomatoes you consider best for your purposes, or most nearly answering your ideal, and save the seed from them. Do this year after year, and see what fine tomatoes you will get finally.

Seed-Gathering

Nothing during the gardening season, and especially in the fall, can be of greater importance than gathering seeds for next year's planting. For many vegetables, perhaps the great majority, we may safely depend on our regular seedsman. But I find it pays me well to select my own tomato-seeds, beans, perhaps peas, cucumbers, squashes, melons, sweet corn, etc. Some pains taken in this direction may not only save us dollars that would otherwise have to go to the seedsman, but possibly give us better vegetables, too.

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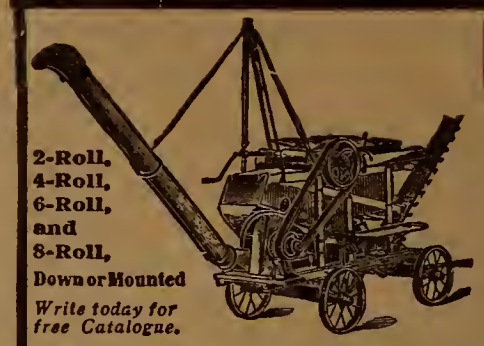

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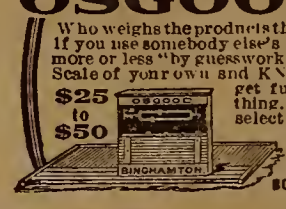

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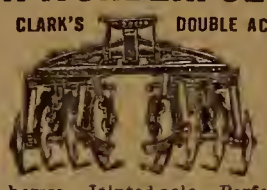

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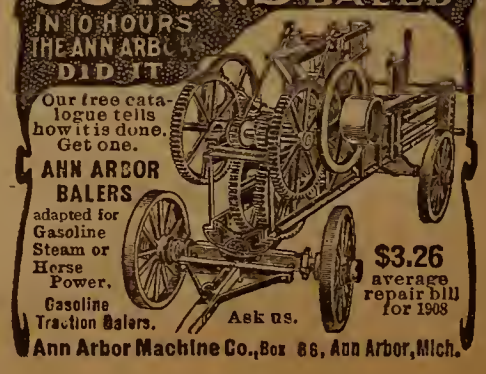

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Fruit Growing---By Samuel B. Green

Strawberry-Raspberry

E. A. S., Lawrence, Minnesota—This plant bears its fruit on the new growth each season, and unlike the common raspberry bears its fruit on the wood two years old. We have grown it here for perhaps twelve years. We have found it vigorous and disposed to spread by underground roots. However, it produces but a small amount of fruit. This is large, bright scarlet in color; hollow, and rather insipid in quality. I do not regard it as of any particular value. However, some of my friends tell me that it makes very good preserves. I have never tried it in this way.

Alfalfa in Orchard

H. H. M., Harris, California—You ask if it would be safe to sow alfalfa in your young orchard, stating that if you use the alfalfa, you would expect to irrigate.

On general principles, I do not like alfalfa in an orchard, for the reason that it takes too much nourishment out of the land, also too much moisture. Of course, if you can and will control irrigation, so as to supply the moisture thrown off by the alfalfa, you can in a measure overcome the injury that is commonly due to growing this crop under such conditions.

If the subsoil is rather compact and the soil rich, it might be safe to sow to alfalfa for three or four years and then break it up; but in any case see to it that you get a good growth of wood on the trees—that is, if the orchard is of more importance than the alfalfa.

Plums Rotting

G. M., Cincinnati, Ohio—You state that you have an orchard of young plum-trees that are just coming into bearing, that they bear abundantly but the fruit is wormy, or else it rots and drops to the ground before ripening. I think your trouble is caused by the common plum-curculio, which is a very troublesome insect throughout the Northern states. This insect is a snout beetle that makes its appearance early in the season, about the time the buds begin to open. At first it feeds upon the succulent tissue of the fruit or flower buds, but later confines its attention to the flower buds, and then when the fruit is formed, almost entirely to the fruit. The larvæ hatch in the plum and become mature insects by autumn, and winter over in the grass and in waste places about the orchard.

Clean culture and cleaning up of the land about the orchard has a very decided effect in reducing the number of these insects. For many years, the common remedy recommended for them has been to jar the trees after spreading sheets on the ground under them. This should be done early in the morning, as the beetles are torpid at this time, and readily drop to the ground when the tree is jarred. When this practice is adopted, the trees should be jarred every day until no beetles are found. Recently, however, we have found that spraying with arsenate of lead early in the spring, and continuing sufficiently to keep the fruit well-covered with the poison, would prevent to a great extent injury from this pest, and I would recommend this treatment.

The Strawberry-Bed

J. C. S., Mingo, Ohio—The large growers of strawberry-plants generally agree that, all things considered, spring is the best time to set out strawberry-plants. For the home garden or in a small way, it is sometimes customary to set out plants as soon as they are large enough to be moved, say the middle of August and from then on to the first of October. In the Northern states, plants set out at this season of the year will give a small crop of berries the following year. Spring-set plants should be cultivated up to cold weather.

It is customary to allow four to eight sets to grow about each plant put out, that is, when they are grown under the matted-row system. When planted in this way, they should be set at least four feet apart. The plants will then spread over an area about eighteen inches wide. When the plants are grown under the hedge system, that is, where they are put out, say, two feet apart, and one runner allowed to act from each plant, so that they are grown as it were in little hedges, three feet is generally considered sufficient distance between the rows.

I think it best, generally, to protect strawberry-plants in winter from successive freezing and thawing, and that this is done best by covering them with marsh hay. Straw that is free from the grain is also good. Rye, wheat, or even oat straw that has a considerable amount of grain in it, is often annoying, by reason of the grain growing in the spring between the rows. A covering of this kind should be put on soon after severe cold weather appears, and it is customary to put it on about thick enough to cover up all the plants and the ground about them, say two inches thick. In Minnesota and Wisconsin, however, and in other sections where they have severe winters, it is generally recommended to put the covering on perhaps twice as thick in order to prevent winter injury, which in these sections sometimes weakens the plants seriously.

Raspberries for Cuttings

J. F., Great Falls, Montana—Our common raspberries cannot be grown successfully from cuttings under ordinary conditions, and in starting the new raspberry bed it is best to begin with rooted plants. If the ground is moist it is a good plan to set them out in the autumn; otherwise, I should prefer to wait until spring. If set out in autumn, pains should be taken to firm the soil very carefully about the roots, so that they will be set solid. I generally mulch such plants when set out in autumn.

Birch-Leaf Skeletonized

H. C., Duluth, Minnesota—The birch-leaves you send on are badly skeletonized. This little insect, known as a leaf skeletonizer, has done widespread damage in northern Minnesota this year, leaving large areas of birch as if scorched with fire. The best remedy is spraying the foliage with some poison, as for instance, Paris green or arsenate of lead about the same strength that is used for the potato-bug. I do not know why this pest is especially abundant this year, but think it due to the fact that it has had immunity for several years from the parasites that ordinarily keep it in subjection.

Borers in Dahlias

In regard to borers in dahlias, there is no remedy for this pest, except that of cutting out and destroying the borer. This borer not only attacks the dahlia, but potatoes, peonies and several other of our garden plants.

The Source of Apple Scions

J. L. P., Blacksburg, Pennsylvania—I think it is yet to be proven that the cutting of scions from the nursery rows, even over a period of twenty or thirty years, will in any way affect the fruitfulness of the trees grown from them. It is my opinion that, while we have numerous bud variations, yet the instances are rare in which they produce any marked variation from the type; nor do I think the growing of trees from non-bearing wood would seriously affect the fruitfulness of the stock grown.

Scions from apple-trees that came into bearing their seventh year and continued to bear annually thereafter, might or might not be better than those from non-bearing trees. The conditions that affect the fruitfulness of trees are yet to be carefully proven, and we do not know them as well as we ought. On general principles, I should prefer scions from those that continued to bear every year after their seventh year, rather than those that have reached their twentieth year without bearing. I doubt, however, if there will be much difference in the stock grown from scions from these different sources, provided of course they were of the same kind.

The trees that had borne annually for a long period of years may have been in a very favorable situation, while those that had not borne in twenty years were probably in a poor situation, and their non-bearing might have resulted entirely from late frost or some cause entirely outside of the planting itself.

I think it would be desirable for a fruit-grower to cut scions from his best apple-trees, and I should prefer to have such nursery stock; but as a rule, trees that bear heavily produce but few scions, and it is almost impossible to get sufficient wood from productive trees for the propagating work of any large nursery series.

Some of our nurserymen do grow and care for scion orchards in approved manner, but these trees are generally cut back so each year for scions that the trees do not bear fruit, but produce annually enormous crops of propagating wood, and I can hardly see how scions from such a source would be any better than scions from nursery rows.

Grape Diseases

E. O., Landon, West Virginia—You state that your grape-vines showed a good outlook for fruit and that some of the bunches would weigh from one to one and one half pounds, and that as soon as they began to ripen the berries commenced to fall off and to rot. I think there are at least two troubles that are affecting your grapes. One of them is the so-called drop of the fruit, to which some varieties are subject as soon as they begin to ripen and which occurs most injuriously in dry, warm weather. I think also they are injured by the disease known as grape-rot, which is very troublesome throughout your section. In fact, it is almost out of the question to raise good grapes in your section, or generally in the Central states, without recourse to spraying compounds, and of these the Bordeaux mixture is the best to use early in the season.

Bordeaux mixture is made up in different strengths, but as commonly used for spraying grape-vines, it is made up of four pounds of blue vitriol (sulphate of copper), four pounds of quicklime and fifty gallons of water. The lime should be slaked to a milk of lime and the blue vitriol dissolved in about two gallons of water, and then these should be poured together at the same time into a barrel of water, which should be stirred, and in this way an even mixture will be produced. The ordinary Bordeaux mixture should be made in this way. Great pains should be taken to strain the milk of lime through a very fine copper screen to take out any lumps which might clog the spray nozzle. The sulphate of copper and even the Bordeaux mixture should not be put into iron vessels, as they soon destroy them. Wooden buckets and barrels are the best vessels to use in making this mixture.

I would suggest that you study up the literature on the subject of grape spraying this winter, and so be prepared for its use in the spring. Bordeaux mixture should be applied through a very fine spray nozzle, which makes a mist rather than a stream. Special pumps are made that are adapted to the application of this material.

Trees to Use for Wind-Break

It is my opinion that the best trees to use in South Dakota are the green ash, box elder, white elm, cottonwood and white willow. It is extremely important that the soil be gotten into good condition before it is planted out to trees. More failures arise from the attempt to hurry the tree, made by planting the seed or the cuttings in sod, than from almost any other cause. I would suggest careful cultivation, as thorough cultivation as should be given to a crop of corn. In wind-breaks generally, in South Dakota, the trees should be placed two feet apart in rows eight feet apart. Eight feet is far better than four feet, for the reason that they can be cultivated at this distance for a much longer period than if planted four feet apart, and in addition it assists the trees in combating the weeds.

Wind-breaks have some value in protecting against sudden frosts.

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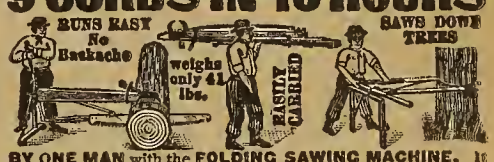

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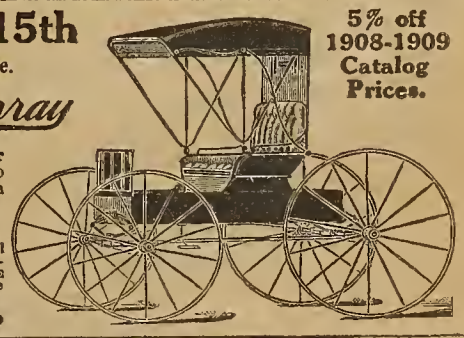

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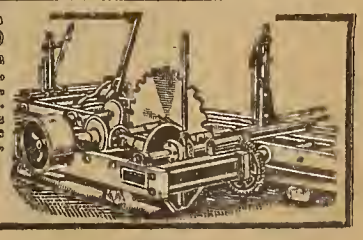

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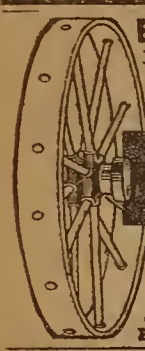

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Practical Farm Notes

Spontaneous Combustion

It used to be denied that spontaneous combustion ever takes place. The idea was considered as a sort of old wives' fable, a superstitious notion of ignorant people, and intelligent folks held it in ridicule. It was claimed that every fire must be started in some extraneous way. The time-old legend of the sending of fire from heaven as a special favor from the gods had a tenacious hold upon the human mind, hence every fire must be kindled in some way by an external agency of some sort. Conflagrations of a mysterious origin were invariably ascribed to incendiarism.

But at last the scientists learned by laboratory experiments that certain chemicals under specific conditions would ignite of themselves. These they classified as pyrophorus, or self-igniting materials. For instance, when alum and lampblack are heated in mixture and thrown into the air it instantly takes fire, a familiar experiment in the chemistry class-room. From this discovery of spontaneous combustion the scientist made further investigations, and found that various combinations of materials would produce the same results under certain conditions, and the popular notion was proven to be true.

Damp or partially-cured hay or straw is peculiarly subject to spontaneous combustion when it is stored in a close barn or mow. The average hay-mow is not built so as to allow much air circulation. Generally there is the door in the end of the barn to admit the hay, with possibly a small ventilator in the roof. Naturally the circulation is poor. If the hay is damp or green when put into the mow so that heating ensues, spontaneous combustion is apt to result. A good many barns are destroyed in this way. When gases have been formed by the heating of the hay, and the circulation of the atmosphere has not been sufficient to carry them away, let a strong gust of wind, laden with oxygen, be carried into the mow, and the situation is just right for spontaneous combustion. It is unlikely that a good many fires which are ascribed to the lightning in thunder-storms are due to this cause.

A hay-mow for safety should have abundant ventilation. There should be large doors in either end of it, and plenty of roof ventilators, so that the gases from the hay may freely escape. How frequently, when we hear of a barn being burned from a lightning-stroke, it is said that the building seemed to be almost instantly enveloped in flames. This fact is without doubt due to the presence of large quantities of inflammable gases from the hay or straw. For weeks after the straw or hay has been stored the doors and ventilators should be left wide open, to avoid the danger from this source. One never hears of a hay-stack or a straw-stack igniting from spontaneous combustion, and incidentally it may be said that such a stack is set on fire by lightning but in the rarest instances. The reason is obvious: The circulation of the air about the material is perfect.

Cloths saturated in oils, especially drying oils, are apt to start fires. Old lamp-wicks thrown upon heaps of dry rubbish have been known to ignite and start fires. Several years ago a friend of the writer built a new home, and moved into it. At the end of the first day in the new home, the housewife left an oily rag in a wooden vessel in the basement near a collection of inflammable stuff, and that night the house burned to the ground, the inmates barely escaping with their lives. An authority on this subject says, "When quantities of soot, linen, paper, cotton or woolen stuff, etc., are soaked with relatively small quantities of oil, and exposed to a limited access of air, they may be expected to take fire sooner or later."

M. G. Rambo.

Up in the Wagon-House on a Rainy Day

"Awful nice place when it rains, ain't it, pa?"

The raindrops were playing a pretty tune on the roof of the wagon-house, especially welcome after a long dry spell which had left the fields and crops yellow and dwarfed. Father and Laddie had finished up the barn chores and retreated to the up-stairs of the wagon-house to have a good time. Not that they do not always have a good time in the old farm-house itself—that need not be said—but, you see, there are two or three rooms fitted up in the wagon-house that have a special attraction for us all. Even mother enjoys coming out to sit in father's den when her own work will permit.

A good many years ago this building had been occupied by a man who, besides being a farmer, had rejoiced in holding the position of justice of the peace. I say "rejoiced" after due thought; for I have often heard him tell with the greatest satisfaction that he had been "justice of the town for forty years."

For a long time the good old man held court in the farm-house. It was trying to the good wife, no doubt—although she may not have said so—to have her floors all "tracked up" from kitchen to parlor by the muddy boots of the farmer-folks, who came to attend the suits which from time to time drew them to the squire's office. So after the new wagon-house was built it seemed natural that a room should be done off up-stairs for the honorable court to hold its sessions. The room was accordingly lathed and plastered, and furnished with rows of wooden benches upon which the men of the neighborhood sat on the days when the squire was "trying a lawsuit," and squirted tobacco-juice at the platform about the stove, and listened incidentally to the edifying testimony which was given by the parties interested and laboriously taken down by the justice in long hand.

But the day came when the old squire no longer held court up-stairs in the wagon-house. The man who succeeded him on the farm was a plain farmer, with no title to maintain and no official dignity to hamper his farm operations. So he ruthlessly put a partition through the room, turning a large part of it into a general store-room and a corner into a big bin for grain.

So it stayed until once more a new man came to the helm, buying the place and bringing with him the wife and Laddie. Another "Laddie" came afterward to enjoy the upper room with his father and brother.

Then came another change in the up-stairs room. The grain-bin room was cleared out and made into a den for father. Some big shelves held a wagon-load of papers and magazines, more or less, while an old kitchen table gave him a good place to set up a file cabinet and to do his writing. To this place Laddie lugged stones and all sorts of interesting things picked up about the farm. A "stonarium" was one of the attractions to Laddie number two, and a great big hornet's nest had its place near the south window.

But the place which appealed particularly to the boys was the workshop on the opposite side of the partition. There, two large windows let in the light in the side and end. An old apple-tree shaded the corner on sunny days. In that corner father put up a work-bench furnished with a large wooden vise at one end and a smaller steel one, which could be adjusted near the middle, for light jobs.

On shelves over the bench and along the wall tools were ranged, and a good line of tools they made, too. Augers, bits, saws, planes, draw-shave, squares, chisels and, in fact, about all the tools that ordinarily go into the kit of a carpenter.

"I don't see why the farmer should not have a good lot of tools just as much as a carpenter," father said; and this was not a bad plan, for first and last the farmer needs every one of these tools to fix up the many breaks that come in farm machinery.

In the room are stored all the pieces of hard and soft wood that come to hand about the farm, from sticks of ironwood and hickory and ash to bits of pine and hemlock. They all have their place sooner or later.

Here is a splendid place for man and boy on a rainy day. In the shop the boy may whistle and work at windmills or do odd jobs that need doing. On the farm there is a call for the exercise of a great deal of ingenuity in making articles of all kinds for the house as well as for the farm outside.

On the other side of the partition father may sit and read and think and write if he wishes to. And the patter of the rain on the roof fits into the train of thought of both man and boy. Who knows what great things may have their day up-stairs in the wagon-house? It certainly is a fact that never will the memory of the good times up there pass away from the hearts of either.

On almost every farm there may be an up-stairs in the wagon-house, with its work-room for the rainy days and the sunshiny days when things need to be done with tools, either driven by the hand or the brain. It does not cost much to make and equip such a place. It need not all be done at once. The tools may be gathered together a few at a time. There is a fascination in bringing home a new tool now and then. Grandfather made a fine contribution on a certain Christmas Day by giving the master of the farm a first-class spirit-level.

To learn how to care for and use these tools is not a bad thing for any farm boy, no matter what he turns out to be in later life. He will see the time, be his occupation what it may, when he will be glad that he learned to use tools in his early life. What if the boy does nick some of the edged tools and run the saws on boards that have rusty nails hidden in them. There are worse things than that. All along life's road such accidents will come, and it is part of our education to learn to look out for the old nails that dull the saw and to be able to put our tools back into good condition, if we do happen to make a slip.

The room up-stairs in the wagon-house will help to keep the boy's love for the farm bright. From this point of view alone it is worth while to devote a little space and time to such a department. Naturally boys like to handle good tools. Laddie and his brother love them so well that they are as choice of them as any woman would be of her nice tableware.

But best of all, it seems to me, is the training of heart and hand which come with the rainy days up in the wagon-house.

E. L. Vincent.

Whittlings

Breakfast always tastes better after the horses are fed.

When you feel like just dragging around, why not get out and drag the roads with a King drag?

Telling yarns by the grocery-store stove while the team stands out in the bleak wind may stir up a laugh, but it is anything but funny.

If the turkey is fattened in a neighbor's corn-field, it wouldn't be out of the way to invite him to bring his family and join in the last glad rites following its decapitation.

"The Lord always tempers the wind to the shorn lamb," but He generally sends a blast from the North Pole to the farmer who is fleeced by the slick-tongued promoter of speculative stocks.

M. G. R.

The Automobile and the Farmer

Any new thing is apt to become fashion and a fad. It was so with the bicycle. It is to some extent so with the automobile. It may turn out to be so with the flying-machine.

The bicycle craze has subsided and the two-wheeled contrivance has now found its place, and a very useful one in many respects. What I objected to most, during the times when bicycling was a fad and a passion and carried on to excess, was the danger that young people might contract curvature of the spine, and the ease with which boys and girls would get away from parental authority and supervision. Now the bicycle has found its legitimate use as a means simply of rapid transit and as a business vehicle.

The automobile now has its inning. It is bound to be the vehicle for the transportation of farm and garden and orchard products to market and for many other uses on the farm. So long, however, as automobiling is a fashion and a fad, there are some dangers and inconveniences connected with its very existence. There are careless people who ride at break-neck speed from place to place. In their hilariousness they care little whether they run over people or break the wheels off other vehicles or scare farmers' horses or get ditched themselves. We suffered in this village for some years by this misuse of a useful invention, until finally a village ordinance was passed restricting the speed of vehicles to twelve miles an hour, and a special policeman, owner of a fast-running auto, appointed to catch the offenders. Fines of twenty-five dollars were imposed on each of half a dozen offenders. Autos are running now at a very moderate rate of speed through our community.

I believe, however, that automobiling, as a fad, will also subside, after a while, and this wonderful new machine will find its proper sphere of usefulness mostly as a business vehicle.

T. Greiner.

Utilizing the By-Products of the Farm

In these days of close business competition, much of the profit, and in many cases the whole of success, depends upon utilizing the so-called by-products to the greatest advantage.

The by-product is something apart from the main article that is manufactured and yet something that has an intrinsic value of its own. For example, in the manufacture of dairy products we have skim-milk, buttermilk and whey.

All kinds of business have their by-products or odds and ends. In the large manufacturing establishments and packing-houses there are numerous by-products. If the packers neglected to make their hair rope and utilize their ox-tails it would make a great difference in their dividends. It will be found so in all kinds of business. The man who makes the best use of his by-products is the one who is the most successful.

Does this apply to us? Are we utilizing the odds and ends of our farm products to the best advantage possible? Are we feeding our skim-milk, buttermilk, whey, corn-fodder, straw and wastes from our fruit-orchard and garden to the most profitable advantage or are we allowing these valuable by-products to go to waste?

The same is true of our time. Are we utilizing our time to the greatest advantage or are we simply working in the field for ten hours each day? What we may do by utilizing our odd moments would increase our mental activity and awaken in us a keen desire to reach the higher possibilities of our calling.

Our minds crave a change from the regular routine of farm work and they will be broadened and we shall have a higher ambition if we read a good class of agricultural books and papers, thus utilizing the by-product of our time.

Our time, outside of what we require to properly conduct our business, is our most valuable by-product and we should aim to find some way to utilize it so that it will not only help our business, but broaden our minds so that we may see new ways to economize in our management.

There is no more timely or important question before the farmers of to-day than that of putting their farming on a strict economical basis and planning their management so that every valuable by-product will be turned into money. There is no commercial or manufacturing business in existence that could withstand the enormous wastes that farming does and continue to pay dividends. The future farmer must utilize every by-product and make every possible effort to stop the leaks that are annually decreasing the profits of the business.

Utilizing Dairy By-Products

The loss to the dairy interests during one year through the improper use of the by-products has been estimated to be more than one half of their entire value or more than twenty-five million dollars. This, we can readily see is an item of vast importance to the dairy interests of the country.

Skim-milk is the most valuable by-product from the dairy and the best adapted to varied and profitable uses. Skim-milk as a human food is unappreciated by most people, but it has been tested under various conditions by food experts and has proven to be a useful portion of an every-day diet for many people. The use of skim-milk ought to be encouraged and would result in finding city markets for large quantities of this valuable by-product.

A report from one of our leading colleges shows that skim-milk has all the protein and half of the full value of the whole milk and is in most localities the most economical source of animal protein. The food elements in skim-milk are equal in physiological value to those of meats and far less expensive.

As a food for young and growing animals skim-milk occupies the most conspicuous position of any food-stuff, especially for very young animals and the results at various experimental stations show that it gives the best returns when fed to very young animals, and when it constitutes the larger part of their rations. It is next best for animals making a rapid growth, but which need other feed than milk, mainly of a carbonaceous nature. Except for very young animals, skim-milk gives the best returns when used in combination with other foods, generally grains. No class of animals will give larger returns for skim-milk than poultry.

Buttermilk ranks close to skim-milk in feeding value, but must be fed with caution, owing to its peculiar physical condition. Whey, the by-product from the manufacture of cheese, possesses more or less feeding value for swine, if used in a judicious manner. It should be fed sweet. Some feeders assert that it contains about one half as much nutritive value as skim-milk, but my experience does not show as favorable results.

Crops That Are Partially Utilized by Farmers

In order to present this subject properly it is necessary that we consider the various conditions and circumstances under which the crops are raised and are to be used and the amount of each crop raised, the amount of capital employed, the kinds of stock kept and many other less important things connected with our farm management.

Among the crops that are only partially utilized, the straw from the small grains is, in the writer's opinion, the most neglected of all by-products and right at the outset I desire to protest against burning it.

In order to derive the most feeding and fertilizing value from the straw it must be properly secured. As much care should be taken to keep it bright and clean as we take our hay. If the grain is to be threshed in the barn, plan to have the separator set so that the straw may be blown to another mow and not have it run into a pile outside. If necessary to stack it have a stack built that will shed water.

All farmers admit that if we maintain the fertility of our farms we must feed more live stock. Here the question arises, "How are we to do it?" If we devote the larger portion of our farm to growing grain we will not have sufficient hay to feed them while they are consuming the grain and it is a poor system of live-stock feeding that does not provide an abundance of roughage.

My idea is to make such use of the straw that it will take the place of hay and forage crops. If we take special pains in cutting our grain and curing it properly and in saving the straw it will make an excellent substitute for hay, especially when it is run through a cutting-box and fed with ground-grain feeds.

Many farmers in the West grow large quantities of grain and keep but a few head of live stock on account of the extra expense and labor required to care for them. To these men I would advise keeping a large quantity of straw in the barn-yard or feed-lot and allowing the herd to work it into manure as rapidly as possible. It may then be hauled to the field and used to profitable advantage on any farm that the writer ever visited. It is surprising how much manure may be made from a stack of straw and how much feed the animals will get out of it if they are allowed to pick it over.

Sheep like it remarkably well and will work it over and pick out every head of grain and other parts that they like. I am not recommending the use of straw alone for feeding stock, but rather to show how it may be profitably utilized with other rough fodder or alternated with hay, corn-stover or other roughage. The reason many farmers do not place a high value upon straw as an animal food is because they feed out everything else on the farm and then expect straw to take the place of the other roughage when fed alone.

For bedding animals straw used freely will save food and promote health, thrift and comfort and make manure which will contain in direct addition to the straw itself all the droppings and liquids which would otherwise suffer a large waste.

Straw may be profitably utilized for mulching berries, fruit-trees and other garden and fruit crops.

Another great waste comes from the handling of the corn crop, more especially in the West, where practically no use is made of the stalks, excepting to allow the cattle the run of the field during the winter to eat what they want of the dry, bleached fodder.

Here in the Eastern dairying sections the silo is a salient factor in saving the corn crop and we cultivate the corn crop to grow the same parts that the farmer in the West allows to go to waste on his farm.

In many sections of the country the idea seems to prevail that corn-stover has very little feeding value and in different localities different methods are practised in harvesting. When properly handled the real feeding value of the stalks is more than that of the grain, and of all ways to secure the stalks the silo will keep them in the most palatable form for feeding and to the dairy farmer who is feeding a large number of cattle from a small number of acres it is almost indispensable.

To the man without a silo the best means of preserving the corn-stover will be to cut the plant close to the ground when about half of the leaves are dead and place in shocks and tie the tops together so that they will shed rain. After standing a while the corn may be husked and the fodder placed back together to complete the curing process and fed from the shock during the early part of the winter. It will be found best to feed the corn-fodder early in the winter, for there will be less waste and the animals will consume larger amounts. In all lines of feeding corn-stover will be found profitable to feed in connection with feeds rich in protein.

Utilizing Waste Fruits, Vegetables, Etc.

By far the greatest waste on most farms is through the attacks of insects which become numerous in some orchards and through violent wind-storms and severe droughts, which cause the fruit to prematurely fall and be wasted unless means are used to save it.

The fallen fruit may be utilized by allowing sheep and swine the run of the orchard to forage upon it.

Properly managed, there is no excuse for large wastes from the fruit orchard that is under economical management, as all parts of the fruit may be profitably utilized. What I have said may be more especially applied to the family orchard. but the principles involved are the same wherever applied, either to the large or the small fruit orchard.

Every community where commercial fruit-growing is being followed should strive to utilize all of the inferior fruit at home and send only the very best graded fruit to market, for the poor fruit not only comes in competition with the good, but it also has the effect of curtailing consumption and driving the consumers to buying fruit that they know is packed and graded honestly.

Every kind of waste vegetable is relished by live stock and poultry and can be made to take the place of considerable quantities of expensive grain foods during the winter, when succulent food is so scarce. No kind of food is better adapted to the needs of laying hens than table scraps. In fact it is claimed by many feeders that the reason why farmers who keep but few hens get more eggs than the more extensive poultrymen, is because table scraps form a large part of their poultry rations. In planning any system of farming we should give due attention to each branch and see that our general scheme of management eliminates every possible waste. When farmers devote the same careful attention to utilizing every by-product that large manufacturing concerns do, there will be little complaint about the business not paying satisfactory profits.

W. Milton Kelly.

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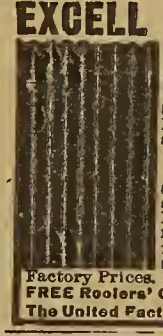

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Why? Because of the outside igniter, modern open cooling system, straight-line valve motion and ball-bearing governor. Thousands in successful operation because of our years of experience in building the best. Seven sizes: 1½ to 16 H.P.
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About Practical Poultry-Raising

Feeding Fowls

As much care and judgment should be used in feeding old fowls as in feeding young chicks. During certain seasons of the year they should be fed sparingly, while at other seasons they should be fed liberally, though extreme care should be used or your fowls will become overfat. A hundred fowls are injured or entirely ruined by overfeeding where there is one injured by being fed too sparingly. An overfat fowl is much more liable to disease in every form than one thin in flesh, therefore be very cautious not to overfeed at any time.

From May 1st to September discontinue the use of corn as much as possible in the morning, and feed oats, and in the afternoon feed equal parts of wheat and oats. From September to December feed wheat, oats and corn. Boiled potatoes or other vegetables are excellent to mix with their mash and should be fed at least twice a week.

This method of feeding will insure good health and an abundance of eggs when they are most wanted. Always mix your mash to a very crumbly consistency and feed in clean dishes or troughs, and keep your poultry-house floors covered with three or four inches of cut straw or hay, among which scatter whole grain, as it will furnish your fowls with necessary exercise in scratching for it, and by keeping them busy will tend to prevent egg and feather eating.

Pure water should be given every day in vessels arranged so filth cannot get into them, and a box of lime should always be within reach of your fowls and also a box of ground bone or oyster-shells. They should always have access to a box of dry earth in which to scratch and wallow. Green food of some kind should be supplied daily, either grass, lettuce, cabbage, potatoes or any such vegetables as you may have on hand. A little charcoal, pounded fine, is excellent to mix in their mash; also a little salt every day and cayenne every other day in winter, as they all aid digestion and keep the food from souring in the crop.

Archie E. Vandervort.

At the Foot of the Poultry Ladder

Grown-up folks are a good deal like boys and girls in many ways. In one respect we are all pretty much alike; we don't want to creep before we walk; we want to get right up and go at it. Some of the most striking failures in poultry have come in just that way. People have seen that some one is making a fair success of keeping hens. Why may not they do the same? It looks easy. And they put all the money they can rake and scrape into poultry, buying stock that costs too much for an inexperienced person to think of owning, and spending a lot of cash for buildings. In a little while things come to a focus. The houses are shut up and you hear that so and so has moved back to town.

Now, cutting a big swell on the start is not the right way to begin with poultry. Leave the swells for some time in the far, distant future, after you have learned more, and the chances are that you will not want to make much of a swell at all by that time.

The most successful poultry-keepers I know of began away down at the foot of the ladder, with a few very commonplace hens. From that standpoint they kept steadily at it until at last they grew into a good thing. If you are ambitious to do better things than you now are with hens or any other kind of poultry, use the knowledge you have of the business as a basis, and gradually work up to the success that is waiting for you if you are patient and careful in your management. If you know nothing about poultry, get a corner somewhere and start in with a few hens. Stick to the business that has been giving you your income. One of the worst things in the world is to drop everything else and launch right out into poultry unless you know something about the work. It is no boy's play to win with poultry. It means work, and hard work. There are a thousand and one details to the business. Every day new questions will arise. You can meet these better if you have only a small flock and are in a position to live, no matter what comes to your hens.

E. L. Vincent.

The Fireless Brooder

A reader of Farm and Fireside asks the following questions concerning the fireless brooder: How is it provided with ventilation? Is the box for hover open side up or is it turned down? Is the body of the brooder single or is it double? Is it tongued and grooved? How is the frame made to go in the hover?

The ventilation is from the top. The cover is hinged on and can be raised to any desired height. When the chicks get large enough to jump out, it is covered with wire netting.

The box used for a hover is placed open side up so that the frame can be fitted inside the top.

The body of the brooder is made of single inch boards not tongued and grooved. All of the body can be made of broad boards. Narrow bands can be used in the front with grooves to fit the glass front.

A partition is put through the middle of the brooder, in order that a brood of fifty chicks can be divided and given two hovers as soon as they get large enough to crowd a single hover box.

The frame is made of four one-by-one-inch strips just large enough to fit in the hover box, and a cloth tacked over it so as to sag two or three inches in the middle.

A. J. Legg.

Opportunities in the Poultry Business

There are great opportunities in the poultry business for the right man or woman. This is a statement that is heard on every hand, and although it is said many times by people who are not qualified to judge, the qualifying word "right" makes it a safe prophecy.

The poultry business has its drawbacks like every other business. The other day I was talking with a rather elderly gentleman who thought of starting a poultry plant because he thought that he was getting too old to work hard, and would earn some easy money. My advice to him was to keep out of the business. He had worked in the city all of his life as a bookkeeper and thought that poultry-raising was so simple that he could pick it up and make a success of it when he had hardly ever seen a chicken. That is just what is the matter with the poultry business to-day. There are too many trying to keep poultry that do not know anything about the work.

Edwy B. Reid.

Feather Tips

The lice and mites are fighting hard these days. Are you?

Ship your own eggs if you can. More money in it, and money for you, too.

Take a little extra pains now to have the water your fowls drink pure and fresh.

You surely will see a big drop in eggs if you shut your hens up this time of the year and do not furnish them plenty of green feed and grit.

Strike a happy medium in flesh, neither too fat nor too thin is the best rule. Fat hens are subject to diseases and thin ones are poor layers.

Clear lard is best for little chicks that are troubled with lice. Kerosene or any other irritant makes the skin smart and hurts. It is not necessary, anyway.

Get the poison under every piece of board, as well as on top. The pests like to hide away where it is dark when not digging on the backs of the biddies.

Some of the bone-cutters run too hard for a woman or a weak man to turn. When you buy one, look out for that point. Take it on trial.

As soon as the coops have served their turn, gather them up and put them out of the way. They are unsightly, and then, too, they are good breeding-places for insect pests. Clean them all up good and dope them with poison before you pack them away.

The peddler's carts are one-sided things for most farmer-folks. They make the profit on the eggs and on the stuff you get, too. A good check right from the city is better; but the cash in hand from the man who eats the eggs is best of all.

E. L. V.

Rheumatism or Sore Feet

A friend and reader of Farm and Fireside has a nice white Leghorn hen that seems weak in the legs. She can walk but a little way at a time without falling down, and she seems to want to sit a good deal of the time. He has had some other birds affected the same way and wishes to know what to do to effect a cure and to keep the trouble away.

Sometimes such difficulties come from tender feet, and I would look first and see if there be any bruises or other signs of soreness of the feet. If none are found, then I would suspect rheumatism. This sometimes affects the muscles and joints and tendons. We have cases, sometimes, so bad that the bird is not able to rise up at all.

It is not a good plan to feed such fowls very highly. No meat or stimulating foods of any kind should be given, but the ration should be cooling, like wheat-bran, barley, plenty of green feed and skim-milk or buttermilk. The houses should be well ventilated and the temperature carefully regulated. A little bicarbonate of soda, say four or five grains a day, might be put in the water the fowls drink. Bicarbonate of soda, as you know, is just common baking-soda.

E. L. V.

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THE WELD THAT HELD
We subject the weld to a mechanical test more severe than 100 years' service and we prove that
the weld is stronger than the steel;
our fence is one solid piece of steel throughout.
Wires electrically welded at every contact point. No clamps, twists, ties or wraps. The only welded fence; the simplest, strongest, most durable fence is the
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The wire is of special steel galvanized by our latest improved process, insuring the longest-lived fence on the market.
Perfectly adjustable to uneven ground, and to all temperature changes.
By taking away bunglesome and unnecessary parts we increased strength and reduced cost. Made in 73 different styles—for stock, front yard, garden or chickens. Just the fence you want is among them.
PITTSBURGH STEEL COMPANY,
PITTSBURGH, PA.

Live Stock and Dairy

Licensing Sound Stallions

In the spring both the large and the small breeders get busy with the common project of selecting good, suitable horses for their weighty mares. The emissaries of studs travel the country either on private mission or as nominees of horse-breeding societies. These latter, I am glad to see, are increasing year by year, and I trust that there will be a still greater extension.

We hear much about coöperation and its adoption in various forms by farmers, but I have always contended that the surest and most profitable form of combination is combination to buy or to hire, and not so much combination to sell. In the hiring of pedigree sires there is a wide field yet to be developed. There are plenty of stud and herd owners who can supply the necessary stock, and farmers are standing in their own light when they fail to realize the advantages to be derived from the use at a moderate premium of high-class, pure-bred stock which can be acquired by combination as compared with the use of a neighbor's bull or stallion of indifferent parts at a fee of much the same value.

With many farmers there is still a great temptation to estimate the value of a sire largely by the size of the fee. That is an error of the first magnitude, and can only be rectified when the value of the good blood is appreciated at its market level. Many farmers, particularly men with four or five mares, would rather use an indifferent horse in the neighborhood than send their mares on a journey with the object of securing an efficient male.

As I have often written, the necessity for combination among farmers to hire suitable horses for the district does not really arise where there is a sufficiency of large studs in the neighborhood, but there are many districts which are not quite accessible to large studs, and which are only supplied with suitable sires by the private enterprise of owners.

The proposal has often been made to make it compulsory on the part of horse-breeders traveling a stallion to provide a certificate of soundness. This proposal has much to be said in its favor.

One great advantage of establishing horse-breeding societies in a neighborhood is that they are far from likely to select a stallion which is unsound. The whole object of the breeders in every organization instituted with the object of fostering live-stock breeding should be to drive the unsound stallion off the road, more especially when even in these enlightened days one sees the facility with which unsound horses can procure services on their rounds. The best method, did one not quite despair of it ultimately succeeding, is to educate by practical example the horse-breeding farmers of the country to an appreciation of the evils arising from the use of unsound sires, and an equally full appreciation of the advantages to be derived from the gradual elimination of horses which are likely to perpetrate their own misfortunes.

Of course it must not be lost sight of that not at all infrequently the mares themselves are unsound. The more reason, therefore, why one parent should have a clean certificate.

No feature of horse-breeding has made more rapid advance within the past few years than the appreciation of good stock by tenant farmers. Hard fact is bringing home to them that money saved on service fees is very frequently money lost. A few examples in a neighborhood have more influence than pages of writing, but the fact requires to be insisted upon frequently, if merely to keep the subject fresh in the agricultural memory.

W. R. Gilbert.

Relative Profit From Animals

This question is often discussed and frequently to but little purpose. The question of relative profits is one of conditions and so it always will be. The person, therefore, who claims that one class of live stock is more profitable than another, without duly regarding the exceptions, bears testimony to the fact that he has grasped only a part of the subject.

Ordinarily the cow will prove most profitable under intensive conditions of farming, as nutrients are furnished in the form of milk much more cheaply than in the form of beef. But it is possible to grow mutton up to a certain limit under the same conditions of farming, virtually without any cost.

The reference is to a small band of sheep kept upon a farm during the entire period of grazing by means of food found in by-places, and which would otherwise be lost if not eaten by sheep. This, however, would not justify the conclusion that dairy cows are not in many instances more profitable than sheep.

Again, take the case of cattle grown under range conditions. Beef thus grown costs but little. Milk or dairy products could not be produced at all under such conditions for the general market.

The various classes of domestic animals are all needed. Under some conditions one class will prove profitable, and under other conditions another class. The important matter, therefore, is to keep each class in its proper place, regardless of the profits that some one else may be making in his special line.

Wm. H. Underwood.

Dairy Queries

Does cleanliness in dairying appeal to you through your conscience or through your pocket-book—or both?

Would you buy a "pig in a poke," and pay as much for it as you would for one of equal weight that you could see? Not much! Then don't run the risk of buying milch cows, no matter how good they may look, nor what quantity of milk they produce. How are you to know anything about that most vital point, the milk test? Choose calves for milkers from the choicest of your own dairy herd—calves with a pure-bred sire back of them; raise, feed and train them yourself, and they'll come nearer measuring up to the standard you have set for your herd than you would be liable to obtain by purchasing, once in a dozen times.

M. A. Coverdell.

U.S.

The Grand Prize

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HAS BEEN AWARDED TO THE

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¶If you want to see for yourself why the United States Separator was awarded the **Grand Prize,** go to our local agent nearest you. He will show you.

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THE VERMONT FARM MACHINE CO.

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Cow comfort and cow sanitation result in **more** cow profits, and that alone should induce any farmer or dairyman to seek these conditions. **Louden Sanitary Steel Stalls and Stanchions** double the light and air in a barn and insure perfect ventilation, perfect sanitation—a result **impossible** with any wooden equipment. Yet

LOUDEN STALLS AND STANCHIONS

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LOUDEN MACHINERY CO., 633 Broadway, Fairfield, Ia.

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The verdict of a million farmers—the men "on the other side of the fence"—unanimously concedes supremacy to "PAGE." The Pioneer of Woven Wire Fences has been tested by a **quarter of a century of field service.** It has the backing of a vast army of fence users, whose opinions are summed up in thousands of letters like these:

Page Woven Wire Fence Co., Adrian, Mich. West Unity, Ohio.
Dear Sirs:— I thought I would send for your price list of Page Fence. I have had 100 rods of the Page Fence up for ten years and it is good yet, and would like to get some more and want you to send the price list as soon as possible. Yours truly, JOHN MARZOLF.

Page Woven Wire Fence Co., Adrian, Mich. Union City, Mich.
Dear Sirs:—Please send me price list of 1258 stock fence. I have the first Page Fence put up in Union township. It was about 24 years ago that it was built, and is a good fence today. I have built about a mile of Page Fence since, 1258 and 2058 heft. There is no agent here at present, and I believe there could be a large sale in this locality if it was worked just a little, for it is the best fence on earth. Yours truly, GEORGE E. ROE. Lock Box 11.

Page Woven Wire Fence Co., Adrian, Mich. White River, Vermont.
Gentlemen:—Some five years ago I bought of you some woven wire fence. This was sent to me at Wilder, Vt. The fence has given excellent satisfaction, and to the best of my knowledge nothing bigger than a cat has ever gone through it. Where can I get more, and can I be sure of prompt shipments? Will you send me prices and descriptions? I am especially interested in a hog fence. Yours truly, C. D. HAZEN, Jr.

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Live Stock and Dairy

Producing a Good Fleece

A PROFITABLE fleece is not produced in a single week, nor in a single month, but in several months, and these months must be months of care and attention. Of course the better the sheep is kept and cared for, the better will be the fleece, both as to quantity and quality. Quality is just as important as quantity, for a high-grade wool is much more valuable than a low-grade wool.

It seems that few shepherds ever think of the fleece as a vital part of the sheep, grown and nourished by the blood of the animal and dependent on the daily prosperity of it for its value. Now it is a fact that the wool is the most sensitive part of the sheep. Under favorable conditions it prospers, and it also suffers most of all parts of the sheep from the ill condition of the animal.

The special character of the wool depends on the structure of it, for unlike all other animal fibers, it is a complicated material having an outer coating made up of thin, sharp-pointed scales which when pressed together make a firm, compact material or felt, which spoils the fleece for the use of the manufacturer. Thus sheep thoroughly wetted and huddling together in a pen have the fleece damaged in this way, and it should, therefore, be a part of the management of all flocks that this condition be avoided.

The feeding is a matter of equal importance. This has a very marked result on the fleece, for the least interference in the regularity of the feeding for a few days even will be shown in the condition of the wool, and this, of course, has a serious effect on the value of the staple, which is weakened considerably by those thin spots.

The fleece will suffer from any cause of this kind before there is any visible effect on the sheep itself otherwise, thus the continuous welfare of the flock should be very closely guarded.

R. B. RUSHING.

Keep the Mature Brood-Sows

IT IS an error, quite frequently made, to dispose of the mature sows, because they are heavier and will bring more in the market than the young ones, and to keep the immature females to breed from. There are several reasons why the young sows do not do as well and are not as profitable to keep for breeders as the mature sows.

In the first place, the young sow is immature, is growing and is not developed in bodily form, and consequently when called on to produce a litter of pigs during that period, she is doing double duty; growing toward mature size and carrying and feeding the young all at the same time. For the reason that she is doing double duty, she has not the large supply of blood and nourishment to feed the young pigs before birth that the mature sow has, and the pigs are smaller at time of birth. She is not likely to farrow as many pigs at first litter as she will in later years. The pigs from the young sow do not grow as large as those from the older ones, and there is a tendency to reduce the size of the animals raised from them.

During a great boom with any one breed, where there is a demand for all the females, both young and old, for breeding purposes, there is a noticeable diminishing in size of the animals, especially from the young ones, and the breed deteriorates in the general quality of the animals. The inferior ones as well as the good ones are bred from which is disastrous to the general standing of the breed.

In breeding, the best is none too good. The mature sow that has proved her ability to bring large litters of pigs, in which there is a large percentage of good ones, is a valuable animal to keep. Fecundity is a desirable characteristic, as one does not need to be at the expense of feeding as many sows to keep up the supply of pigs as when they have small litters. The mature sow has a large amount of blood and nourishes the pigs well while carrying them. The pigs are large and strong at time of birth, often reaching double the size and weight of those from the young sow.

After the pigs are farrowed, the mature sow is capable of giving a good supply of milk that will start the pigs growing rapidly. When they have had their stomachs well expanded, it is not a difficult matter to keep them growing. If one keeps the pigs growing along rapidly, he can produce a given amount of gain in weight cheaper than if grown slowly. A certain amount of feed is required to sustain life, and therefore the most rapid gain is the most economical.

There seems to be an impression that sows will cease breeding after they are three or four years old. That is a mistaken idea. There are cases on record where sows have bred until thirty and thirty-five years of age. If one goes farrow six months, do not condemn her. Cows do the same occasionally and we think but little of it. There may be good reasons why a sow skips one season in breeding.

It will be well to consider some of the facts in connection with the subject before feeding the old sows off and keeping the young, immature and untried ones for breeders. It is ultimate profits we are looking for, and as the old sows breed larger litters of pigs, of better size and capable of growing more rapidly than those from the young ones, they are more profitable to keep.

N. A. CLAPP.

Concerning Horses

SHYING is often caused by the fact that the horse does not see clearly. It is always the result of the animal not understanding what it sees or hears. To a horse a strange sound, an unusual sight or a sudden movement in the hedge or weeds by the roadside appears to be a menace, and the shying caused thereby is merely from the instinct of self-preservation. In many cases the removal of the blinkers is a simple and effective cure for shying. The horse's eyes see in every direction, and the blinkers shut off a very large part of his field of vision. It is but according to its nature that a nervous animal should become excited at strange noises, coming from sources against which it is blindfolded or which it can see only indistinctly.

Horses should have a chance to exercise in the open every day. Even in the severe cold weather they should be turned out to run as long as they care to. They will always come back to the warm stalls before they get cold enough to hurt them.

A horse should always be tied to the hitching-post with a strong strap or rope, which there is no danger of its breaking. A neck-strap, which goes round the neck and passes through the ring in the bit, is better than the ordinary tie-strap fastened in the bit-ring, such as usually comes with bridles. If a horse once breaks loose, by accident or otherwise, it is apt to start him in a bad habit. Furthermore, a horse should always be tied so that it cannot get its head to the ground. As soon as it finds out that it cannot get its head to the ground nor nibble the grass, it will keep its head up and stand more quietly.

It is not a good plan to keep the manger full of hay and let the horse have all it can eat all the time, especially if you use the tame hays. The animal should be allowed to clean the manger every day. Feeding too much hay is a waste, and also an injury to the horse. The animal will eat more than it digests, keeping its stomach overcrowded, a state good for neither man nor beast.

R. M. RAMBO.

Profitable Stock-Feeding on Hillside Farm

THE farmer feeds stock, first, for the immediate profit there is in the work, and second, for the improvement of the soil, so that he may raise larger crops to feed or sell.

On Hillside Farm, after trying various crops, I have concluded that the best way is to raise my own feeds, and that corn and alfalfa are the most profitable for me to raise and feed. I think this will be a good rule for the majority of the feeders of the Northern states to follow.

Where alfalfa is raised on a farm in large quantities, and fed with corn, a great quantity of rich manure can be obtained.

I have quit raising rye and oats, and hence am short of their straw. When straw is plentiful in the neighborhood, I buy some to feed with the alfalfa and corn crops, and also to use as bedding for animals; but sometimes both oats and wheat fail. In the latter case some of the poorest hay or corn-fodder is fed in such quantities that enough remains uneaten to be used for bedding.

An alfalfa meadow is mowed for several years until it runs too much to blue-grass, then it is turned into pasture. When alfalfa is sufficiently mixed with blue-grass, plantain and other weeds, there is little danger of bloat if stock is turned into it. Cows and other stock not being fattened are kept on pasture in summer, and fed alfalfa hay and corn-fodder in winter, with more or less corn and other feeds, according to results desired.

Steers to be fattened are bought in the spring after the pasture is started. After corn is past the roasting-ear stage, feeding of it begins. A little of it is fed at first, stalk and all. After awhile some jerked corn is also fed in increasing quantity. But the intention is not to arrive at a full feed of corn; not to allow the steers to get off their feed, nor to scour, nor to waste feed, but to keep a good appetite for corn. Rather feed more alfalfa than corn. What is called a full feed of corn is unnecessary in fattening steers when alfalfa is fed with it.

In the fall when the alfalfa of the pasture is not sufficient, enough is cut green from the meadow to supply the steers or other stock; and when this cannot longer be obtained hay is fed to the cattle, there generally being blue-grass on the pasture until the steers go to market about the first week in December.

Both hay and corn are fed on the pasture, spread over it in the cleanest and best places first until nearly all over it; but not enough is fed to kill out the grass. This method of feeding has been criticised as being wasteful. But let the readers please remember that the cattle are only fed what corn they will eat up clean at once. If a few ears are fouled by the droppings, the pigs that follow will get them. If the pigs make trouble, they are shut into another field until the cattle have finished eating corn. I have visited other feeders who feed in small lots from boxes and racks, and found the ground muddy or foul, and lots of feed tramped into the dirt about these racks and boxes; and I cannot see in any of it the saving it is said to be. Besides all this the manure is mixed with the clay, so it cannot all be gathered, and the lot grows up to weeds. But where the feeding is done in the dry weather of autumn, on the clean grass, the manure is about all saved, for it helps the grass in the future, and should this field be broken up for corn, a very large percentage of the value of the crops fed to the cattle will appear in the new corn crop.

Where horses are fed alfalfa hay and corn-fodder in winter, little or no grain is needed, unless they are working very hard. And stock cattle do well on hay and corn-fodder alone. Considerable corn is purchased yearly and fed on this farm, there being not enough raised to make a balanced ration with the alfalfa. Corn is cheap here.

These methods have been practised long enough to make the crops and pastures respond in a very satisfactory manner. Probably some time in the future, winter feeding may be practised more here. But this would mean the added expense of silos, large barns with sheds and cement floors, all of which require too much outlay to a farmer that is not very well off. The winter-feeding plan would require a vast amount of reliable labor which is not to be had in this section of the state.

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Live Stock and Dairy

Handling the Fall-Pig Crop

MANY of the most successful breeders and feeders of swine are inclined to discourage the practice of breeding their sows to farrow two litters a year. In fact, some writers upon swine subjects assert that a man would be money ahead if he would kill every litter of pigs farrowed later than the forepart of September.

Both observation and experience have convinced me that the profit from the fall litters depends fully as much on the management of the young pigs as it does upon the time they are farrowed. Unless a man has comfortable hog-houses, and abundance of room to provide exercise for the fall pigs, he should not attempt to grow them. Personally, I feel sure that I can make as large profits from a limited number of fall pigs as I can from the litters farrowed in the spring, but I find that it seldom pays to winter more fall pigs than I have sufficient room to house and accommodate conveniently.

The fall-pig crop is easier to handle and the pigs possess more vitality and strength than the litters that are farrowed in the spring when the sows have been without exercise during the time they were pregnant. Then again, the sows' ration of pasture and forage crops during the summer is better adapted to the development of the unborn pigs than the winter rations that are fed by the average swine breeder and feeder.

The sow that has been allowed the run of pasture and forage crops during the summer is usually in ideal condition to produce good, vigorous pigs in the fall. The succulent feed and outdoor exercise have put her system in excellent condition for the farrowing period and suckling the pigs.

The class of feeds for the sow and her pigs is better adapted to their needs than the feeds that are available during the early spring. The second growth of clover, the soft corn, the waste vegetables and fruit can be utilized at a profit and will be relished by the sow and her litter and give the young pigs an excellent start in life before the cold weather sets in.

If winter dairying is being practised, the skim-milk may be profitably utilized by the young pigs and it will give them a start in life that cannot be equaled with any other variety of food afforded by the farm. Fall pigs that are given an abundance of palatable food and sufficient exercise during the winter will be in excellent condition to make the most profitable use of pasture and forage crops the next summer, and can be made to attain heavy weights by the time they are finished for market the following fall. I know that many successful hog-growers will claim that this line of feeding is not profitable, but when we plan our management so that much of the growth is produced by the waste, forage and by-products of the farm, I am sure that the pigs that are marketed during the fall at a weight of from three hundred to four hundred pounds can be made fully as profitable as the spring pigs that are marketed at the same time, weighing from one hundred and seventy-five to two hundred and twenty-five pounds. It is no uncommon occurrence for a car-load of heavy-weight hogs to top the market, even though the tendency of the market is toward a lighter hog.

Pigs should have good, dry sleeping-places and plenty of clean straw or litter. A covering over the nests will prevent the cold air from above coming down on them and causing them to shiver and pile up. I prefer to have a cover about four feet from the floor over the pigs during the winter. Too much straw and litter is not to be recommended, as the pigs will come out steaming and catch cold. The nests should be on an elevated place where there will be no accumulation of dampness, for pigs that are compelled to sleep in a damp nest seldom thrive.

In feeding during the winter care should be exercised to feed only such a quantity of wet food as will be readily eaten. Avoid allowing old feed to accumulate in the troughs and freeze, for that will be certain to put the pigs off their feed. Feed only palatable foods, and if possible provide some kind of vegetables or roots for succulence.

Sows that are allowed to raise two litters a year are easier to handle and are sure to continue more certain and regular breeders. I have found it very difficult to get sows safe with pig when they were bred for but one litter a year.

W. MILTON KELLY.

Good Pastures

NO FARMER fully realizes the necessity of having good pasture until the flow of milk decreases during the warm months of summer. When his milk check begins to grow smaller each month, he sees the mistake of not having sufficient pasture for his herd of milch cows.

Every farmer should provide an abundance of pasture for his cattle by sowing some grasses. There are many kinds of grass which make good pasture, but in my opinion, clover is the best, at least for milk production.

A large field of clover may be sown and divided into two or three parts, and the cows allowed to pasture one of the divisions for a few days and then another for a few days, thus allowing that first pastured to recuperate. However, there are many ways of providing pasture, and in different localities different plans are followed.

In this part of Wisconsin, where the land is very heavily wooded, the farmers usually cut out the underbrush, leaving the large trees if they are not too thick, and in the spring of the year tear up the soil with a tooth harrow. Then a mixture of clover and timothy is sown. This makes a very good pasture for cattle during the warm summer months.

For fall pasture we have found that it is a good plan when sowing barley to also sow one or two pounds of clover-seed to the acre. After the barley has been harvested, when other pastures are poor, the clover which was sown in this way is in good condition for pasture. Another thing, when this clover is turned under it enriches the soil.

We believe that in all localities, clover will be found to be one of the cheapest and one of the best things for pasture.

J. W. BURKE.

Sheep-Judging at the Agricultural Extension School at Amesville, Ohio
[See Article on Page 3]

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730 TIMES A YEAR

If you own milch cows you are doubtless milking some of them twice a day every day in the year.

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Just think of a loss of from ten cents to a dollar, according to number of cows and circumstances, twice a day every day in the year, and what the saving of it amounts to in the course of a year, let alone for the fifteen to twenty years life of the separator.

Are you willing to let such a loss go on? If not why not send for a De Laval catalogue, or better still try a De Laval separator in your own dairy. Either is free to you for the asking, from the local agent or the Company directly.

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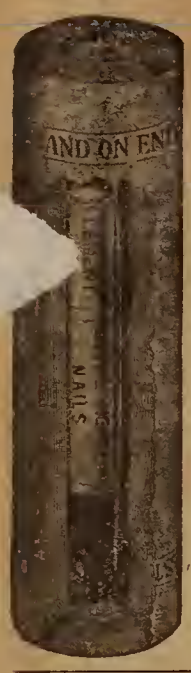

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Practical Farm Notes

Name the Farm

It is a good thing to have a name for the farm. It gives it distinction and dignity. A farm ought to have an individuality of its own. It is more than a piece of land with a house on it. It is a representative of its owner and indicates what he stands for and, in a large measure, his relationship to the community. It is his book, upon whose pages he writes his autobiography and portrays his character in letters which the wise may read.

A name for the farm is apt to be a fine inspiration to neatness and tidiness. It represents a degree of refinement and culture, and the occupants of the farm are prompted to live up to the standard the name suggests. You do not expect the farm which has been distinguished and dignified by an appropriate title to be ill-kept, with unpainted buildings, shabby fences and overgrown with weeds.

A name for a farm should be appropriate. Before christening a farm one should make a study of names and their significance, and select one that is not simply euphonious in sound, but one that is descriptive of the location or the character of the place or that stands for something that is specific in the history of the locality or in the biography or character of the owner.

A name out of the ordinary is good, as it strengthens the individuality of the place. A little thought and ingenuity will suggest a title that is unique and not in common use.

Suppose you are running a dairy-farm. You call it "Jones' Dairy," because your name is Jones. That is commonplace and has no advertising value for your products. But you decide to call your farm, say, "High-Level Dairy." You continue to produce the cleanest and best milk and butter. In a little while the "High-Level" products become known in the community as the standard of excellence and your trade demands the largest limit of your capacity of production.

The name of your farm should be put upon a sign in a conspicuous place, just as the business-man puts the name of his firm upon his store where everybody may see it. It will be a thing of interest to the passersby and invite attention to your premises.

It is a nice thing to have your stationery printed with your farm name upon it. It has a business-like and progressive appearance and the expense is small. A neat advertising-card in the local newspaper with the farm name in conspicuous type would bring business to the farm which otherwise is lost. It could be changed in substance from time to time as the articles for sale may vary. It would be a great help to any farming neighborhood if every one having anything to sell that others may need would make use of the local newspapers to let their wares be known. M. G. Rambo.

Do Figures Tell the Whole Story?

I have been a crop reporter for many years and have often wondered why Secretary Wilson sends out such wonderful reports as he does, evidently to impress the country that the class represented by his "bureau" are wonderfully prosperous.

A large majority of farmers are doing well because they have learned by hard experience how to farm better. But Secretary Wilson's reports are neither full nor fair. He says the farmers raised so many million bushels of corn, worth on the market so much, and so many millions of hogs, worth on the market so much; but he does not say how many million bushels of that corn were required to make the hogs, but totals the whole as if the farmers marketed both corn and hogs.

The same is true with cattle, sheep, etc. If he would deduct about twenty bushels of corn for every hog marketed it would reduce very materially his total of corn for market. And then the horse, cattle and sheep feed would have to come out of what the hogs left before a bushel went to market. After all this is subtracted from the entire yield he would have the amount left for the market. Then his corn report would look like thirty cents beside the one he now issues. Mr. Wilson should take a few lessons in elementary arithmetic.

Fred Grundy.

Agricultural News-Notes

There will be a bumper sugar-beet crop in Michigan this year.

Advices from Canada and Nova Scotia state that the apple crop will be the largest of any since 1896.

Hawaii is one of the eleven states of the Union to employ professionally trained men in their forest service.

With orders to the amount of twenty-six thousand cars, it begins to look as if there will soon be "something doing."

The Caro beet-sugar factory in Tuscola County in eastern Michigan, has more than ten thousand acres of beets to extract sugar from this season. .

A novel and good idea is that of collecting samples of impure food and making a display of them at the various county fairs held throughout the state.

The state of New York now has seven hundred and fifty subordinate granges having a total membership of eighty-five thousand which is steadily increasing.

In 1907 eighty million gallons of alcohol were distilled from potatoes in Germany. This was made from about one twelfth of the total potato crop of that year.

The government now realizes the importance of the wireless system of telegraphy and has installed apparatus on seventy-three vessels and at forty-four sea-shore stations.

Recent investigations made at the Wisconsin Experiment Station, show that on an equal number of acres, over six times as much phosphoric acid is taken annually from a grain farm as from a dairy farm.

Over two thirds of the potash used in Europe is in the form of Kainite. Large amounts are used in Germany for sugar-beet cultivation, also in America for tobacco-growing and other fertilizing purposes.

Answers to three hundred postal-cards by the leading physicians of Indiana show that two hundred and sixty-five are vigorously opposed to the use of benzoate of soda as a preservative of food products.

The Department of Commerce and Labor reports that last year's importation of wool amounted to 266,500,000 pounds, being the largest since 1897. The three leading classes of wool are clothing, combing and carpet.

Dr. J. W. Connaway, the veterinary surgeon of the Missouri Agricultural College, at Columbia, announces that he has perfected the hog cholera serum discovered in the United States Department of Agriculture. So that if a small quantity is injected into the ham of each hog the outbreak of the cholera can be prevented and in most cases cured, where the disease has not progressed too far. This means the saving of millions of dollars each year to the farmers in the great corn-growing states. *

The American Pomological Society

The thirty-first biennial session of this well-known society was held at St. Catherines, Ontario, Canada, September 14th to 17th inclusive.

This was the first time that the society had met on Canadian soil, and the conference was a signal and all-inspiring success. Although the attendance was good it would have been larger had the meeting been held at an earlier date. As it was, a good representation of the fruit-growers and scientific horticulturists of both the United States and Canada were present.

A committee including representatives of the provincial as well as local horticultural societies, and in whose hands the Province of Ontario had placed a substantial sum of money, had perfected all arrangements for the meeting and all in attendance received royal treatment.

At the opening session an address of welcome was given by the Hon. James Duff, Minister of Agriculture for Ontario, and by the Hon. E. D. Smith, of Winona. Responses were made by Col. C. L. Watrons, of Iowa, and Dean L. H. Bailey, of Cornell University. The latter spoke at some length and with rare felicity and eloquence on "The Satisfactions of Raising Fruits."

An interesting feature of the program for the next three days was a series of symposiums on subjects of vital and present-day importance. Among the subjects discussed by experts were the following: Influence of soil and climate on varieties. The financial side of orcharding, grading and marketing orchard fruits, sulphur sprays for winter and summer use, orchard management in relation to maintainence of fertility, nut-culture in the East and South, the newer varieties of grapes, diseases of stone fruits, the value of demonstration orchards, present states of oriental pear hybrids, citrus-culture in the South, and others of like import. Among the papers on special subjects, the following are good illustrations of the variety of topics considered: A study of varieties, sod and mulch orchards in Ohio, a sketch of fruit-growing in Ontario, conclusions from thirty years' experience in growing grapes, effect of various cover crops on amount of soil moisture, and does the presence of pear-trees in an apple-orchard increase the tendency of the latter to blight?

Entertainment Features

Another feature of the meeting was the excursions generously provided for and under the direction of an efficient local committee. One afternoon the members were taken to Grimsley Park and Stony Creek, centers of the best all-around fruit-growing section of Ontario. Here many of the more delicate and luscious fruits of temperate zones are grown to a degree of perfection rarely equaled, and the finer peaches and grapes find an equally congenial soil and climate. The next afternoon an excursion was taken through the eastern section of the Niagara fruit district of Canada, and the famous fruit farms and orchards of Messrs. McCalla, Secord and Onslon, Armstrong and others were duly inspected. Saturday the week's program came to a fitting end by a visit to the Canadian Agricultural College at Guelph. The day was perfect and every opportunity was given to see the equipment and something of the character of the work done at this famous agricultural school.

The fruit exhibit of the society was held in connection with the annual horticultural exhibition of the Niagara fruit district. Over five thousand plates besides hundreds of market packages and exhibits in bulk were displayed.

One large individual exhibit was that of pears by Ellwanger and Barry of Rochester, New York, which included one hundred and forty distinct varieties.

The St. Catherines Cold-Storage and Forwarding Company had a bewildering collection of fruits packed for market.

The Wilder medal for exhibit of special value was awarded to Mr. A. Pay, of St. Catherines.

Mr. L. A. Goodman, of the Missouri State Horticultural Society, was re-elected president; Prof. T. V. Munson, of Texas, first vice-president; Prof. John Craig, of Cornell University, secretary, and Prof. L. R. Taft, of Michigan, treasurer. W. R. Lazenby was elected vice-president for Ohio.

Although not definitely decided, the place of the next annual meeting is likely to be Jacksonville, Florida.

William R. Lazenby.

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Farm Notes

Remodel or Build New?

Our folks are having a strenuous time this season rigging up the big barn so that it will be more comfortable. It was a pretty wise man who said that one must make one or two barns before he knows what he wants. We have proved this to be true in many instances, none more striking than this of the barn. We thought we had done a fine job when we finished moving a little twenty-six-by-thirty barn out of the middle of the meadow where it had been all through the years before we bought the place, raised it up and put a basement under it, capping the climax by adding to the length till it was fifty feet long. It was a good barn, too, handy as two pockets in a shirt, but we made some big mistakes.

First the barn was too narrow. We never could get a sixteen-foot rigging in with a load of hay on it. It was too close to the ground for sills to stay sound. The biggest mistake of all was that we had the horse-stalls up over the cow-stables. That we never would do again. You see why. So do we.

But we are at it hard and heavy to make the barn bigger and to put in a good cement floor. As the barn is now, it will be seventy-four feet long and thirty-odd feet wide. The stables will all be on the ground floor. There will be plenty of air space and light galore. Some swing stanchions will make it about complete.

We found the ground sills and sleepers just about gone to nothing with rot, due to lack of air about them. There is a thing we feel that every farmer ought to know: Give plenty of air to all timbers that lie near the earth. It is hard work to make over a barn, and especially so when there is a good deal of farm work to do; but Laddie, the Laddie of olden times, of whom we have so often told the dear friends of Farm and Fireside, now grown to be a man with a loved one of his own to make home sweeter, is doing so well. Just now the cement and sand are coming in for the floors. The stone for the bottom layers came from the farm. We thought our farm was pretty clean of stone, but what would you think of getting eleven loads on a piece of new seeding not more than an acre in size? Seems as if they must have grown since the last plowing.

But speaking of building additions to any kind of a farm structure calls particular attention to the matter of material. We are getting to be pretty nearly cranks on our place about timber. It is so scarce and so high-priced! The sticks for the frame came from our own land, but we never struck an ax into one tree that we did not wonder where the next one was coming from and try the best we could to provide for the growth of that new tree. Isn't that the secret of preserving timber on the farm? Get a new tree started as soon as one is gone.

But the stuff we had to buy cost war prices, I tell you. When we came on the farm twenty years ago we bought fine hemlock lumber for ten dollars. Now you must lay down twice that amount and perhaps even then you will not get as good stock. But the end is not in sight—the end of the higher prices; the end of the lumber is tremendously in evidence. Every little tree that measures as much as a stovepipe somehow finds its way to the mill nowadays. It is enough to make one fairly shed tears to look at this waste. Every farmer that has any timber left ought to turn into a forest-preserver. If he has land adapted to little else, he could not do better, it seems to me, than to set out trees.

E. L. Vincent.

Farmer Boys Should Have the Higher Education

In the September 10th issue of Farm and Fireside, Mr. Fred Grundy, in his article "The Farmer and the Farmer Boy," tells us how highly amused he was when a certain young man went to a "nobby sort of college" and had his head turned in his freshman year. Now if this article is Mr. Grundy's honest opinion of colleges in general, as regards the "Farmer Boy" then it is surely high time Mr. Grundy's views of college were dispensed with. No doubt this particular case is true, but every one knows it is a rare exception; and the idea of the boy's becoming a tramp is highly ridiculous. Making vagabonds is not exactly in the line of the up-to-date American college.

Take a few lines from Bishop J. W. Bashford's article on, "Does it Pay to go to College." "A striking book, entitled 'Who's Who in America' contains biographical sketches of 9,643 of the more prominent people in the United States. Of this number 6,711 have a college education or its equivalent; 965 more attended college for a time; 889 graduated from normal schools or academies; 239 stopped with a high-school training; 808 attended only common schools and 31 were self-educated.

"These figures show at a glance how important higher education is for a successful career. But the college population numbered only one in three hundred, when the men now in active life secured their training. Their numbers entitled them to furnish only one third of one per cent, whereas they actually furnished sixty-nine per cent. In other words, the colleges furnished 207 times as many successful men of to-day as their numbers merited."

In which class does the Farmer Boy of to-day choose to stand? I write this with the hope that it will unmake the harm and correct the erroneous impression Mr. Grundy's article might have made. I have had my father's opposition to overcome in order to go to high school and college and know how unpleasant a task it is. I sincerely hope that all the farmers may deal generously with their sons who desire the higher education, which means an opportunity for external success and the enlargement of one's whole life. C. C. Holloway.

October Reminders

Drag and shape up the roads a bit, before the ground freezes. It will help to keep them in better condition all winter and next spring.

If there are any lice about the poultry-house, dip every fowl on the place while the weather is still moderately warm. Look after the mites, too. Don't start the flock through the winter with either of these pests present.

Don't forget to dig, select and store those seed-potatoes. Do it carefully and separately from the general digging. If you have marked the vigorous hills and secure seed from no other kind, so much the better for next season's potato crop.

This is the great month for storing the winter supply of fruit and vegetables. A little carelessness or neglect at this particular season may mean a shortage in these most desirable supplies, or the paying of a high price for something to replace what you should have saved.

Why not store a few sweet potatoes, and thus save paying a big price for them this winter and next spring? They are delicious for table use, and you may need some next season for a hot-bed. After they are thoroughly dry, they are very easily kept in sand, or wrapped in paper and stored in barrels and boxes where the air is not damp.

October is the month for selecting, harvesting and storing seed-corn. From the 1st to the 15th is the approved season. Right now is the very time to begin planning for improvement in your next season's corn crop. Select about three times as much as you will need for general planting; then you can sort it over next spring, and plant only the choicest. Your neighbors will be glad to pay you a good price for what you lay aside, as it will still be better than the average seed-corn, which is usually picked from the loads at husking-time, or chosen from the crib in the spring. Get right on this seed-corn proposition.

M. Albertus Coverdell.

The White Ash as a Shade-Tree

The white, or American, ash is an appropriate and valuable tree for the lawn or park. It grows a straight, upright trunk and is crowned with a symmetrical top of thickly-leaved branches, making it a beautiful shade-tree.

It is a fairly rapid grower and if healthy young trees are secured for transplanting, they acquire a considerable size in a very few years. A vigorous tree, seven or eight years old, will have a body four to six inches through, and a crown of spreading branches from twelve to sixteen inches across.

In transplanting, it is best to secure trees about two inches in diameter at the largest part. The top should be cut back to the trunk. Put about six inches of well-rotted manure in the bottom of the hole in which the tree is set. Cover this with three or four inches of soil. Then set the tree in a little deeper than it originally grew. Tamp the dirt well about the roots. Keep the roots well watered during the first season, especially through the hot, dry months, so that the tree may get well started in its new situation.

M. G. Rambo.

You Need Paint

A good paint is one of the cheapest things you can buy, just as a poor paint is one of the most expensive.

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(2)

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The Skilled Farmer Versus the Unskilled

The difference between skilled labor and unskilled labor is familiar to every one. It is skill that gets the best wages. The lowest rung in the ladder of industry is occupied by the useful, but generally poorly-paid "common laborer." To lift his level, and to better his condition is the great problem of the ages, for when his standard of living and his wages are lifted, all workers go up with him as if society were a pile of gymnasts in the circus, in which each human stratum stood on the heads of the one below, until the last, which stands on the ground. The common laborer is the man who stands on the ground, and holds the others on his head.

* * *

Sometimes certain kinds of skill become so common that they no longer help in life's battle for wages. Reading and writing were once so rare that a person possessed of them was a "clerk," and had certain legal privileges of much value. Now the mere ability to read and write is of no use whatever as a factor in skill. "Benefit of clergy" is as out of date in the labor-market as in the courts. The laborer must add other skill to the ability to read and write, or he will not be helped in the labor-market. It is only the ability that is not possessed by every one that lifts its possessor above the mass.

* * *

Farmers are different from other laborers in this, that they hire themselves to a plot of ground and take their wages in its yield. There is no boss to divide the skilled from the unskilled. Both sorts exist, but they both use the same tools, wear similar clothes, are classified as belonging to the same industry. There is no such distinction as that between the mason who lays the stone and the shoveler who digs the cellar. The plot of ground to which the farmer hires himself never tells whether its "hired-man" is a skilled or an unskilled farmer, until the crop is taken off. Then the difference is manifest in the yield—which is the farmer's wage. And the ground will not always tell this the first year or the second. Sometimes the unskilled farmer will take off as good a crop as the skilled—for a year or so. But eventually the ground will give the skilled man his card into the Union of Efficient Husbandmen, and the unskilled will gravitate into the class who exist by farming, but never really live.

* * *

There is more in this matter of speaking of the farmers' "wages" than a play upon words. The yield of the land is "wages" in the strictest economic sense. The farmer, unlike most earners, has his wages under control within the limits between greatest skill and least. There is no "going wages" by which he is circumscribed. He may mix brains and knack with his task to the utmost, lifting himself into the ranks of the highest development of skill, and the field to which he is articled is bound to return to him the wages due to such efficiency.

* * *

And, on the other hand, as there is the highest class in skill in farming, there is the lowest class in lack of it. As there are "common laborers" in the other fields of industry, so there are "common laborers" in farming. There is an inexorable rule of wages which, as society is now organized, presses the wages of unskilled labor down to just what laborers can live upon, according to their standard of living. That is why the crowding into a community of a class of laborers able to do common labor and capable of living on less than the going wages is really a menace to the unskilled laborers. This was the real basis of the anti-Chinese agitation in California long ago, and of our present laws against the immigration of Orientals. The Caucasian cannot live on what the Asiatic can get rich upon, and in the absence of unlimited demand for labor, he must yield to the man who can eat rats, or eat rats himself. So it would be in farming, if there developed or came to this country a class of farmers able and willing on the whole, to pay twice the rent American tenant farmers can pay, and numerous enough to take all available farms. They might pay this increased rent either by living on less or producing more.

* * *

And here is the lesson for our readers. The unskilled farmer may never be able to make more than a bare living—that is one of the things which we must leave to the future. But that he is limited to a bare living as things are now is certain. The inexorable law of wages fixes this, and must as long as present conditions prevail. But the farmer has the widest limits of all laborers, perhaps, between what he must be contented with if he makes of himself a "common laborer," and what he may receive if he lifts himself into the ranks of the really skilled workers. It is one of the most cherished beliefs of Farm and Fireside that farming as a skilled business is the best business in the world. To this end, it hopes to show its readers from time to time the results of efficiency, industry, horse-sense, careful study and good business methods as applied to the business of farming. It hopes to show that no one has more reason to strive to lift himself above the level of the unskilled than the tenant farmer; for the unskilled man who owns his own farm may be saved by the rise in land values from the failure he would otherwise incur, while the man who rents must lift himself by his own methods or remain down. We do not believe that farming is a business by which men can make themselves rich—in the modern sense of the word—and we do not believe that it is the highest proof of success in life to have gotten rich; but comfort, something for the rainy day and for old age, a free and unfearing life—these things are the best that life affords. And these we think the farmer may be more nearly sure of than any worker in the world, with assurance of special returns for special skill. If there is anything inspiring to our readers in having brought before them histories of successes such as these, we promise that measure of cheer and inspiration to those who peruse our columns during the coming year.

Taft for Conservation

On September 28th, at Spokane, Washington, President Taft made a speech which is of great importance and interest to the farmers and producers of the nation. In it he states his attitude toward reclamation, forestry and the handling of the coal, oil and phosphate lands and power-sites owned by the government.

The latter items are of most interest to farmers as such. The phosphate lands are the only known source of supply for a prime requisite to fertility. Most of the phosphate deposits of the east are in the hands of the Phosphate Trust, controlled by the Schmidtmann interests which also own the phosphate deposits of Europe. Monopolizing these, they can mulct the farmers of the United States and of the world in almost any amount unless the phosphate deposits owned by the United States government are so held as to stand between the people and the monopoly.

President Taft's speech is encouraging. It should lead to legislation of the right sort. He favors the retention by the government of the right to control the lands against monopoly. He believes that the surface should be sold for agricultural, town or range purposes, and the oil, coal or phosphate rock handled in some way, either by a conditional sale or a lease on royalty, so that the government may forfeit the ownership if necessary, in order to frustrate monopolistic schemes. He also favors the passage of laws by Congress permitting a similar leasing of power-sites. Altogether, his speech seems an indorsement of Pinchot, not only in terms, but in spirit.

It is to be borne in mind, however, that Mr. Taft has broadly hinted that he does not consider it legal to withhold these lands from entry permanently in the absence of action on the part of Congress. The present bar against land-stealing is executive, not legislative. Therefore it will be up to Congress at the next session to legalize the padlock. Your senators and congressmen are in position to help or hinder.

A steady stream of letters from constituents sometimes is more effective than oratory on the floor.

Fifty-Bushel Wheat in Georgia

A Georgia farmer tells in the Southern Cultivator how he grew three hundred bushels of wheat on six acres of what he calls "common land" because it was the ordinary sort of southern land which produces only about half a bale of cotton to the acre. It is interesting. He prepared the ground well, and used on the field six thousand pounds of guano costing sixty dollars and two sacks of nitrate of soda costing twelve dollars. His entire expense for labor, seed, fertilizers, threshing and hauling was $132.80. He got $1.30 a bushel, or a total for the crop of $390, or about forty-three dollars profit an acre. Moreover, he was able to harvest a good crop of pea-vine hay after the wheat was removed, and counts on a bale of cotton to the acre this year, instead of half a bale as formerly. It would seem that all the profitable wheat-growing in the world is not done in the Dakotas or Western Canada.

*

The Wisconsin Experiment Station has tried out the milking-machine, and hands down a verdict in the form of a bulletin which can be had by those interested. In brief, the judgment is in favor of the machines with some qualifications. The dairyman adopting the innovation should know what he can depend upon in the way of help who will intelligently follow the directions of the manufacturers, or should attend to the matter himself. Under such conditions, which will assure the machine a fair opportunity to succeed, the investigators think it will be so much of a success as to fairly compare with good hand-milkers, and may prove better than ordinary farm-help. Here is hope for the easing up of another of the ancient and back-breaking jobs.

*

It was a severe blow of chance to Commander Peary, when Cook came back with his story of having found the pole, just as Peary was all ready to step into the lime-light as the "Only" and "Original." But as Shakespeare says, "In the reproof of chance lies the true proof of men." It would have been so much better for Peary if he had said: "Certainly, Cook went to the pole. So did I. I'm going to prove that I was there; and of course Cook will do the same!" The American people love the dead-game loser—almost as much as the winner.

OUT OF THE LETTER-BOX

Editor of Farm and Fireside:—

I see no reason why you should discontinue your "In the Public Eye" page, unless Mr. Lewis drifts around to Socialism. He is opening the public eye so that it may see the dark and mysterious ways of public men. Public men are public servants. They are hired by the people to work for the people. Yet they go to the legislative halls and sell out to the highest bidder. Not all of them do this, but too many of them do. So if Mr. Lewis can open the eyes of the people by his plain talks, I say let the good work go merrily on.

West Virginia. W. T. Smith.

Editor of Farm and Fireside:—

I have taken your paper less than a year, but I prize it above all other farm papers we take because of your editorial page and the one given to Alfred Henry Lewis. All my relatives, as well as myself, are staunch Republicans, yet I most thoroughly enjoy Mr. Lewis' writings. Elihu Root is one of my political idols, yet I enjoyed Mr. Lewis' remarks about him, although I could not agree with him. Let us all try to be something more than pin-head politicians.

In the September 25th issue the man from Arkansas does himself injustice, greater than he can do you or Mr. Lewis, in the position he takes. Can he find anything but the broadest, patriotic principles in the editorial that precedes his letter? Do not be so narrow, my friend, I will be glad to refund the money you paid for Farm and Fireside, if you will still continue to read it. The editorials are enlightening.

New York. R. Bliven.

Success—And Things That Win It

By E. L. Vincent

Did This Man Succeed?

"He wasn't very successful in business, was he?"

"Never made much money; no. I suppose that is what you mean?"

"Why, what else would you mean?"

I hunched up a little closer to the two men who were talking over the life, financial and otherwise, of this farmer friend. As it happened, I knew the man whose success, or lack of it, was under the microscope; and if ever I was interested to know what were the several opinions of these neighbors, it was now. So I waited and kept my ears open, not to be an eavesdropper, but to find out how success loomed up before them. This is the story I caught.

"Well, sir, I'll tell you about this neighbor. He started out a poor man and ended just about where he started. Never laid up a cent. His place may have been free from debt, but that is about all. Never had an easy wagon to ride in as long as he lived, till the children grew up and bought it for him. His clothes were of the very plainest. He was always scrimped in purse and poor in dress. I would not call such a man really a success in life; would you?"

Now was the time when my soul fairly leaned forward to catch the reply. For quite a while no reply came. Just a long waiting.

"I have been thinking of that man's home. You didn't know it very well, did you? I thought not. Well, there was a large family of them, boys and girls. It took a lot to feed them and clothe them. The farm was rather small. It would not keep many cows and the crops were never large. To make up for what was needed and could not be earned from the farm, the father taught school in the winter season. There he had the advantage of many farmers. He had a fairly good education when a young man and had kept his mind bright through reading and studying with his boys and girls."

"But that never paid him much, did it?"

"The wages were small; yes. But hold on here! Do you think we are to look for our pay in this world all in money? If we cannot lay up money in the bank, do you think that necessarily marks us failures? I don't. Wait a minute! He did get enough to clothe his boys and girls well. They always looked first rate. Of course the mother had to turn their clothes some. When a coat was too small for one boy it was handed down to the next, and so with the girls. It was pretty tight nipping sometimes. But they kept tugging away.

"And then they began to get large enough to work on the farm themselves and to think about going away to higher schools. That meant still more sacrifice, but they met it. The father wore pretty poor clothes himself in those days, and the mother had to go without many things most folks would call necessaries. They were all going to the hardest kind of a school, the school of economy. No money in the bank those days.

"But there was something better. The children began to come home from the schools, bringing their diplomas with them. They went out into the world and took places of honor everywhere. One boy studied engineering. They take the express for home the minute they get loose from their work, and it is a happy place for them, too. The boys and girls began to bring some things with them to make the old home more comfortable, and there was a carriage, and a better horse to draw it."

"Oh, well, men differ as to what should be called success."

Differ! I should think they did. The fact is, we have all gone mad over money—money and having a good time. If we cannot have money to throw right and left and something to entertain us from morning till night we are as poor as Job's turkey. The papers every day tell us of the success of some man, but it is always one who can count his millions. The boys and girls read these things. They hear us older people talk about success as a matter that relates to great farms, gigantic operations in the business world or positions of world-wide renown. Naturally they get the idea that these are the things that count and they begin to strive for them.

I wonder how many of us would agree that humble farmer and his wife, working away through the years with little spare money to use and cramped many times for the necessaries of life, really were successful? Would we call his boys and girls true treasures? Would the days be spent in the little country school-house seem wasted, or would we find in the good done a sure evidence of a life put to the very best use? Just stop a moment now and ask yourself what you mean by the word "success."

There is good farm philosophy in these sermonettes from a New York Farm. Even a horse will fall off in the effectiveness of his work if he worries. And how much more sensitive to worry is a man—and in even greater degree, a woman? Who can estimate the practical value of such philosophy as this?

The Beauty of Holding On

It pays to stick as long as there is anything worth sticking to.

A big storm out West pelted a man's wheat down to beat all. It did look discouraging when he went out the next morning and looked at it. It seemed to him that the Lord and everything and everybody else were against him. He had worked so hard to plow that field, seed it and get it in the best shape he could, and there the whole ninety acres lay flat, pounded down to the ground and ruined

As he was feeling the bluest, a man came along.

"Yes; all gone to smash! The whole summer's work gone up!"

It was a hard-looking piece of grain—and no mistake.

"What will you take for it just as it stands?"

The farmer thought about it. Nothing there. Never would be anything. It would not straighten up so that it could be cut.

"I'll take ten dollars!"

"Here's your money!"

And the deal was closed.

That man went into that field with a mower, cut the wheat, raked it up, threshed it and got two hundred bushels of wheat which he sold for two hundred round dollars!

If that man had only—but he didn't. He got down in the mouth and jumped at the chance to get that ten-dollar bill!

A good many things in life turn out just about like that. We don't stick! An old fellow I know was shingling his house one day when his feet slipped and he slid down toward the eaves. As he came nearer and nearer to the edge of things he gritted his teeth and said:

"Now comes the nipper!"

And he gripped the shingles with a grasp like death and saved himself.

There are nippers all along life's way. How do we meet them? Do we just give it up and say, "Well, I'm a goner, anyhow" or do we take a firmer grip on the situation and come off all right? Everything depends on how we face a tight place.

A cat in the corner is master of the situation as long as she keeps her face toward the dog that watches her, ready to take the top of her head off if he can catch her unawares. There she sits her feet curled up under her, but if you could see those feet you would see that every claw is out, ready to rip that dog's hide. Her eyes are as steady as pole-stars and they flash fire every moment. She looks calm enough, but her heart is beating like a trip-hammer. And you know how it will turn out. That dog will have to back out and give it up as a bad job if the cat just holds steady to the end.

You must keep your face to the front in this world if you expect to do anything. The man that looks behind him to see if there is a good place to get out and hide away from a bad-looking situation is a failure.

Sometimes it happens that our farming operations go against us for several years. The crops fail. It is too dry or too wet, too hot or too cold. Prices drop down below the margin of profit. The world tugs hard. What shall we do now? Give it up and sell out? Very seldom can a man turn his back upon the farm home, with all its sweet associations and not be forever a different man—different, but not better, not happier.

When such a crisis comes into a man's life, the thing to do is to hold fast and keep faith with himself and with those he loves. The farm is so many-sided that it is almost always possible to give a little more attention to new things. When grain goes down, the dairy may be pushed a little harder. It takes more than a poor crop in one line to down a man.

Here is an argument for all-around farming. Specializing is all right when you know that you have a sure thing all the time. But as a rule general farming is best; there is less possibility of a total failure. Half a dozen baskets for the farm eggs—then if one gets smashed you have some left in the others.

Anyhow, stick.

Cheer Up! Life's No Funeral!

There are plenty of things going on in this worl make us smile and think well of our fellow-mei is only the bad men that get their names so often in the papers. Queer why people should be so ready to pick up and report the stories of graft and all that sort of thing and pass by the splendid things men are doing to make the world better and happier! If we could only have our eyes opened we might get a great deal of pleasure thinking of these fine deeds of our fellows.

For instance, a young man drove up to the store in one of our cities the other day with some beautiful apples for sale. They were so round and fair and smooth that for once the man who came out to buy could not say a word against them. He took them all at a good price. As it happened, I knew just where those apples came from and you will like to hear the story, I am sure. Up on a certain pasture side-hill a scraggly tree grew. The fruit it had was small, sour and fit for nothing. The cattle used to hunt around under the tree after a big wind for the gnarly things.

One day a few years ago the owner of that farm made up his mind that he would see what he could do with that tree. So he engaged a man to come and graft it. He just about sawed the whole top off. Little was left of it but stubs and here and there a lot of short bits of wood sticking up in a prickly sort of a way, as if to forbid any attack from earth, sky or air.

But what a change in a few years! The bits of prickly branches grew. The top took on new beauty. Where only scraggly limbs reached out, new wood came. And miracle of miracles, great rosy-cheeked apples took the place of the poor, small, worm-eaten things that used to grow there! This was the fruit my young friend was selling at the top of the market! Fine, was it not? And listen to him as he says:

"I mean to make that old orchard of mine bear just such fruit some day. When I get time to trim it and put it into shape, it will do it!"

That is the kind of work that counts. But it comes through energy, ambition and hard work. One cannot sit and dream about it and have the juicy apples fall into his hands. Life is too stern a thing for that. Let's get at it and do just a little bit more to help the world on. We can do it. Every tree that is grafted over to bear better fruit, every scrap of land that is made to produce more and better crops, every fence newly laid up, every tree set out, every effort made to give us better cattle, is just as surely the work of a man with a mission as is the planting of a school or a factory or a mission station anywhere in the world.

Just now a letter comes to me asking for a bit of advice about getting started in a certain branch of poultry-raising. It reminds me that men and women are reaching out everywhere for new thoughts and inspiration—letters flying over the country everywhere in search of a helping word. The thought seems to be in the mind of almost every one, "How can I do better than I have?" This is fine.

It used to be thought that a piece of land almost anywhere, a few cows of any age, color, breed or size and a house and barn made a farm. The man who owned such a place was a farmer. No one expected much of him. He was just a farmer and that was all there was of it.

Just see what things are being done on the farm of our day! It makes the head swim to think of it. But we have not begun to reach the top of this farm ladder yet. To-morrow will be the greatest day anybody ever saw in the history of this nation. To-day is greater than yesterday. Every to-day will chase the yesterdays out of sight.

What is the reason of this? Only that the men of our time are better men than those of the past. You know that. Be fair and honest now. Put down the paper with all its tales of wickedness and shame. They are here because this is a wonderfully large world we are now living in and these events are gathered up from every point of the compass. Think of the men and women you know. How do they compare with those of long ago? Oh, I tell you we have reason to be proud of our day and generation. True hearts are everywhere. More men are doing things than ever before.

Are you and I of the number who are helping to make the citizenship of our day better and truer and grander? We ought to be. We may be if we will. All that is needed is to be true to the best there is in us. This calls for courage, grit and patience. We have these, have we not? We would rise up in rebellion against the man who should say we have not.

THE NEW FARM AND FIRESIDE

A Few Features for the Next Year

THE greatest farm and home paper is to become greater still. For thirty-three years FARM AND FIRESIDE has stood as the standard farm and home paper in America. All these years it has championed the best interests of the farmer and his family. For a third of a century FARM AND FIRESIDE has grown, until now over two millions of the most intelligent men and women in America read its pages twice each month.

The time has come when the readers of FARM AND FIRESIDE—the most progressive farmers and agriculturists in the country—want more information, more farm facts, more expert advice, than we have been able to give you in the past. You have asked us for the best farm paper that can be produced at any price and you are going to get it.

The new and greater FARM AND FIRESIDE will come to you beginning with the next issue November 10th. All the features of FARM AND FIRESIDE that you have liked and loved and enjoyed will be retained. It will still be the same old FARM AND FIRESIDE, only bigger and better and handsomer. Beginning with November 10th, also, the subscription price of FARM AND FIRESIDE will be raised to fifty cents a year, but you, our old friends, can subscribe for the new FARM AND FIRESIDE at the old price. You will find all about the special rates to you on Page 31.

The Farmers' Chance

THE day has arrived when the farmers of America are going to make money—more money than they have ever made before. Some of the greatest authorities in the country say that soon the United States will have to import wheat from Europe and will have to import cattle from South America. This means that prices will go up and that we farmers will get more money for our products.

One way we can surely make more money is by getting bigger crops from our land. Do you realize that the United States now produces less wheat per acre than any great wheat-producing country, except European Russia, and less potatoes per acre than even the poor peasants of European Russia? All this means that the farmers of America can grow much bigger crops than they now do. One of the things FARM AND FIRESIDE is going to do, is to give you the most expert information and advice about the production of crops. FARM AND FIRESIDE will show you how to get bigger crops, how to raise better live stock, how to make more money out of every department of the farm. The best men in every branch of agriculture will write for the new and greater FARM AND FIRESIDE.

Furthermore, if you want information on any farm subject and do not find it in FARM AND FIRESIDE, write to the editor and he will get the information for you from the man who knows more about that subject than any one else in the country and will send it to you without cost just because you are a reader of FARM AND FIRESIDE.

The new and greater FARM AND FIRESIDE is going to interest every member of the family. Besides all the farm news, the fireside departments will be bigger and better than ever before—better than any other home paper published. This winter you will get in FARM AND FIRESIDE a complete thrilling novel, many delightful short stories, a complete department for children twice a month, the latest fashions, thousands of handy hints for the home. Besides all this, FARM AND FIRESIDE will bring you on its cover, twice every month, a beautiful high-art picture in colors which will decorate any home.

How We Are Going to Spend Sixty Thousand Dollars for Our Readers

THAT sounds pretty big. Well, it is big, but it's going to take a lot of money to make the best and biggest and handsomest farm paper. Remember, please, it's going to be the same old FARM AND FIRESIDE, only better and bigger. Some of the men who helped to make the first number of FARM AND FIRESIDE will help to make the new numbers. They were boys thirty-three years ago, and now they are gray-haired men of wide experience and knowledge.

This is the way we ar going to spend this sixty thousand dollars:

In addition to our managing editor and staff of associate editors, we have secured, as editor-in-chief, Mr. Herbert Quick, of Sioux City, Iowa. Mr. Quick is a farmer himself and has lived among farmers all his life. He has been, in addition, a writer of national reputation, a successful businessman and mayor of Sioux City. We were mighty lucky to secure his services.

Here is a photograph of Mr. Quick. We feel sure that he will become a personal friend of every one of our good readers who now look at his face.

A Foreword From Mr. Quick

"WE INTEND to make for you, our readers, that best-possible, better-than-ever-was-seen farm paper. And we feel that it is the most interesting, the biggest and the most worth-while job which American publishing offers to-day. We hope that you folks on the farms will feel a little of the interest in the work that we feel.

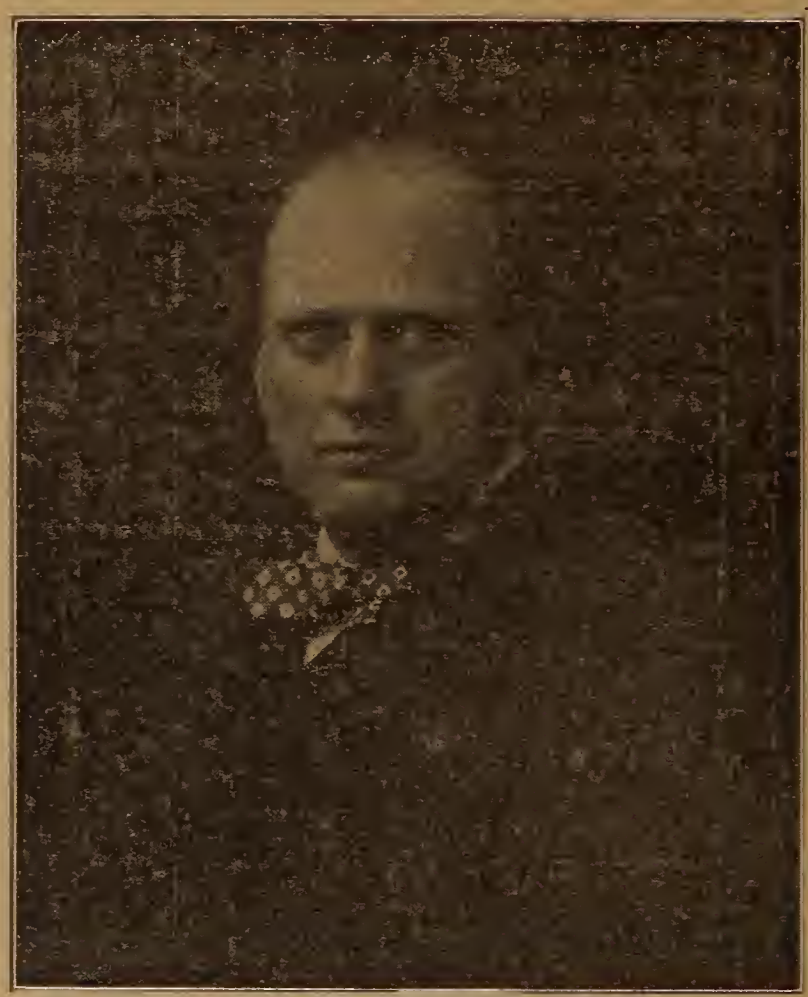
"You see, FARM AND FIRESIDE is our farm. We are going to try to make two ideas, two inspirations, two upward impulses, two aids to better farming and better living grow where one has grown before. We shall be an 'intensive' farm paper; for we shall be greedy of space and sorry if a single line gets into it which shall turn out to be a weed or fails to bear a crop of benefits to our readers."

We are going to spend more money for first-class, accurate, authoritative, strictly agricultural articles and for stories than has ever been spent before by a farm paper—and for illustrations and pictures in particular. Mr. Quick, with his vast acquaintance with men who have done things, will travel from one end of this country to the other, seeking out just those things of most interest to farmers.

A Beautiful Cover

EVERY issue of FARM AND FIRESIDE will have a beautiful cover printed in full color. To enable us to print these beautiful covers, we are putting a ten-thousand-dollar addition to our gigantic FARM AND FIRESIDE printing-press. This really represents a much larger outlay than would appear at first, as it means costly designs and expensive half-tone plates for the covers of each issue in addition to the ten-thousand-dollar addition to the press. We would not for one moment sacrifice farm sense and farm reliability to make our paper beautiful. FARM AND FIRESIDE will be more practical than ever before. But we believe that you will greatly appreciate the beautiful covers that will adorn FARM AND FIRESIDE in the future issues.

The new and greater FARM AND FIRESIDE will be printed on fine book-paper—as fine as we can buy for the purpose. This means that all the illustrations and pictures will be printed more clearly and more beautifully than has ever been done before.



HERBERT QUICK
Editor of Farm and Fireside

The Farm and Fireside Farmers' Lobby

FARM AND FIRESIDE has undertaken for its readers perhaps the most important coöperative work ever begun by a farm paper: A lobby for farmers at Washington. The railroads, the great manufacturing industries, nearly all the most important commercial enterprises have representatives at Washington who follow every bit of legislation pertaining to their interest, and keep their employers informed of what is being done.

All the big selfish interests have their lobbies in Washington. Some of them are paid by the interests they represent and some by the United States—for many of the great interests have their own representatives in the membership of House and Senate. Your member and your senator may be thus serving one master while wearing the livery of another. We hope not, but such may be the case.

And now FARM AND FIRESIDE has established for the farmers who read it a special Farmers' Lobby at Washington. The director of FARM AND FIRESIDE's Farmers' Lobby will be Judson C. Welliver, one of the best known legislative writers in the country. He will attend the sessions of the United States Senate and of the House of Representatives. He knows the ins and outs of our national capitol as few men know them. He will tell you in FARM AND FIRESIDE how the votes were cast on matters of interest to farmers. He knows the Washington game, and he is a man of powerful personality and of convictions. He knows the ways in which the agricultural interests may be betrayed. He will tell you when he sees that they are being or have been betrayed. And when something is accomplished for the farmers, he will tell that, too, in FARM AND FIRESIDE and give credit where credit is due. His work will be a big, new feature of FARM AND FIRESIDE.

The Farmers' Lobby means that you will have a special representative at Washington who will look out for your special interests and will notify you when any legislation affecting your interests comes up. Through FARM AND FIRESIDE's Lobby you can carry weight with the Senate and with the House when matters of importance to you come up. There will come many a time when the readers of FARM AND FIRESIDE can control legislation if they act together. A special lobby costs a railroad or a business thousands of dollars. The Farmers' Lobby will cost FARM AND FIRESIDE a good deal of money. But you, as a reader of FARM AND FIRESIDE, will get this service without cost.

A Big Novel

EVERY woman reader of FARM AND FIRESIDE—yes, and every man reader, too—will be delighted to know that FARM AND FIRESIDE is to have a fascinating and absorbing serial story. No magazine in the country will have a better serial story than "Miss Selina Lue," which is to be begun right away. It is by the distinguished story-writer, Maria Thompson Daviess. Everybody, except FARM AND FIRESIDE readers, who wants to read this latest and most popular success of Miss Daviess will have to pay a dollar or a dollar and a half for it when it is sold in book form. We are very glad indeed that FARM AND FIRESIDE readers will be the first to read one of the season's most popular novels.

It is just the best sort of a story to read out loud during the long evenings. It's filled with human interest and bits of humor that will make you laugh even on your bluest day.

Miss Selina Lue doesn't seem a bit like a heroine in a book. After you have read about her just a little, she grows into a flesh-and-blood woman, some one you can't help loving and some one who really unconsciously teaches you a lesson in unselfishness and downright goodness.

But the whole story is not just about Miss Selina Lue. There is a delightful love story running through its pages, which is sure to please and interest all the girls in the family and the grown-ups, too.

A Great Staff of Writers

IT WILL be impossible to name all the important writers and to tell about all the big features of the new and greater FARM AND FIRESIDE for the coming year. Here we mention a few of them. We ask you, on FARM AND FIRESIDE's great past record of a third of a century, to take our word that FARM AND FIRESIDE will be the best farm and home paper in the country.

Every department of farm life and activity will be covered in FARM AND FIRESIDE by the man most fitted to say the final word of authority on the subject. Already we have a number of the most distinguished men in agriculture as writers for the paper. They will continue as coeditors of your farm paper. Many experts, the best in their line, who in the past we could not afford to secure, will now write regularly for FARM AND FIRESIDE.

Our Poultry Department will be more practical and complete than ever before. This we consider a most important department. We shall have a new associate editor who will conduct our live-stock department, a practical farmer who has been successful. Fertilizers, rotation of crops, soils, farm implements and machinery, fruit-growing, grain, the garden—each of these subjects will be covered regularly by the most practical expert we can find.

You Can Subscribe Now at the Old Prices

THE GREATEST FARM PAPER

More Good Things for Next Year

PROF. S. B. GREEN
The distinguished expert on fruit-growing

MISS G. M. GOULD
The world's great fashion authority

WM. H. UNDERWOOD
Farmer and contributor living at Ozark, Illinois

FORREST CRISSEY
Distinguished journalist, contributor to Farm and Fireside

DR. M. P. RAVENEL
A world authority on tuberculosis

E. L. VINCENT
Well-known farm writer living at Binghamton, New York

One Distinguished Farm Writer

One of the big men in American agriculture is Dr. F. H. King, of Madison, Wisconsin. He is a writer of charm and power and a practical man with fame and prestige among the scientists of the world. He has been added to the staff of FARM AND FIRESIDE—one of the biggest things that could happen for us. His first series of articles will be on Lessons for American Farmers From Japanese and Chinese Agriculture.

Professor Green on Fruit-Growing

If FARM AND FIRESIDE should hunt the country over for a better man to conduct its Fruit-Growing Department, it could not find him. Prof. S. B. Green has been with us for twenty-one years and will be with us, we hope, for twenty-one more. He is professor of horticulture and of forestry in the University of Minnesota, the author of many books and bulletins on his specialties, and is a recognized authority here and abroad. He is president of the Minnesota Horticultural Society and of the State Forestry Board.

An important writer on farm subjects, well known to our readers, is Mr. E. L. Vincent, who will continue to talk to them in the future. His real job in life, as you know, is to help people over rough places. Incidentally, he makes fruitful and keeps fertile an old farm of two hundred and fifteen acres near Binghamton, New York.

More Farm Writers

Among the writers on farm subjects, from all parts of the country, in the new and greater FARM AND FIRESIDE will be Wm. H. Underwood, R. B. Rushing, W. D. Neale, W. Milton Kelly, J. C. Mohler, Fred Grundy, Dr. M. P. Ravenel and T. Greiner.

Wm. H. Underwood, who is one of our old stand-bys, tells us hard-won truths from his farm of one hundred and ninety acres near Ozark, Illinois. His farm is mainly devoted to the growing of grain, hay and live stock.

R. B. Rushing's excellent articles on live stock have been a source of benefit and enjoyment to our readers for a long time.

W. D. Neale's articles on live stock and related topics have been well received by our readers. He is a farmer who is in personal touch with his subjects.

W. Milton Kelly's strong writings in FARM AND FIRESIDE have made him a favorite with our readers. We anticipate still closer relations between him and them in the future.

J. C. Mohler needs no word of introduction. He is connected with the Kansas Department of Agriculture and is an agricultural authority who is also a writer. He will do some most important things for us.

Fred Grundy is one of the best known writers on farm subjects in the country. He is a practical agriculturist, for years making a good living from growing small fruits and raising poultry.

Other Specialists

No writer has been of more help to the great mass of FARM AND FIRESIDE readers than T. Greiner. His articles on gardening, written from a knowledge and experience that is not excelled the world over, are always practical and helpful.

Dr. M. P. Ravenel is a world authority on that dreadful disease, tuberculosis. He is professor of bacteriology and hygiene in the Agricultural College of Wisconsin and he will contribute to FARM AND FIRESIDE on tuberculosis in both man and beast and other topics related to farm hygiene.

Robbing the Farmer

The most difficult problem the farmer has to solve is the marketing of his crops. Isolated, a long way from his market, he usually has to sell his crops to some city commission merchant who has him at his mercy in making payments. FARM AND FIRESIDE has spent hundreds of dollars studying this vital and difficult problem. The operations of commission merchants have been investigated, ways and means of organizing farmers' coöperative marketing associations have been planned.

From time to time different phases of this gigantic question—the remedy for abuses and the improvement of existing methods—will be discussed by such able writers as Forrest Crissey and George C. Streeter. These two men, ripe in experience, have studied conditions as no other men in the entire country have studied them. They are not only keen students and accurate judges of any economic situation, but clear and forceful writers—and, above all, fearless.

Lewis and Politics

One of the most successful features FARM AND FIRESIDE ever secured—if thousands of enthusiastic letters from our readers are any indication—was the page of politics every two weeks from the pen of Alfred Henry Lewis.

Hot-shot talks from Mr. Lewis' pen will continue from time to time to stimulate the minds of FARM AND FIRESIDE readers on the important political subjects of the day. No man knows the game of politics better than Mr. Lewis. He knows, personally, all the important men in politics and in the national government. He is, at this moment, with President Taft on his tour across the continent.

The Best Stories

Now that FARM AND FIRESIDE is going to be such a big paper, we are going to have an extra story each issue besides the serial. In November 25th we will start an exciting two-part story, one which will just make you wish you could push the days along until the postman brings you the December 10th number, so you can see for yourself how it all turns out.

We have not forgotten the mothers who read FARM AND FIRESIDE, and to prove it, we have started in this number a new department for them. It will appear monthly. Every mother who reads FARM AND FIRESIDE cannot afford to pass it by. The page will be filled with good practical suggestions of all kinds that are just for busy mothers.

For the Girls

The Girl's Department grows more popular each issue. It tells all about the newest fads and fashions, ideas for entertaining, church fairs, bazaars, notes on etiquette and beauty hints. Beside all these good things, there is an instructive series of articles on vocal culture, written by Benjamin B. Schwering, an authority in the musical world. The girl who has a voice can easily learn how to sing properly by carefully studying these articles.

Then come the little folks. Their department will be better than ever before—the stories more interesting and contributed by writers of repute in the "children's" world. In this number Cousin Sally, who conducts the department, announces the organization of Cousin Sally's Club and tells about the beautiful membership club-button. The monthly contests are always popular and we are offering better and better prizes all the time.

The Latest Styles

The Fashion Department will be a fashion magazine in itself. There are to be more patterns each issue of FARM AND FIRESIDE than we have ever before shown—patterns which are easy to follow and have a stylish air of their own when developed.

The woman who wishes to keep pace with the fashions may do so. How, did you ask? By reading Miss Gould's interesting fashion talks. Miss Gould's large experience with women enables her to conduct this department as no other woman could. Her office is right in the heart of the big New York fashion-center, where it is possible for her to learn daily all the changes in the styles.

A Big, Vital Farm Paper

In these two pages we have been able to mention but a few of the features of the new and greater FARM AND FIRESIDE, and we have been able to mention and picture but a few of the great agricultural and home writers who will contribute to our columns this coming year.

And now a word about your subscription—although the price of FARM AND FIRESIDE is to be raised to 50 cents a year commencing with the next issue, November 10th, the business management will accept your subscription to FARM AND FIRESIDE now at the old prices—namely, one dollar for a four-year subscription of ninety-six issues; fifty cents for a two-year subscription of forty-eight issues, and thirty-five cents for a one-year subscription of twenty-four issues. Even if your subscription has not yet expired, it will pay you to renew in advance and save money. Subscribe for your friends, too. They will appreciate it. You will find a subscription-blank on Page 31 of this issue.

T. GREINER
Who conducts our fine Garden Department

MISS MARIA THOMPSON DAVIESS
Author of Farm and Fireside's great new novel

W. MILTON KELLY
A specialist on live stock and soil management

ALFRED HENRY LEWIS
The brilliant writer and authority on politics

FRED GRUNDY
Popular contributor on farm subjects

W. D. NEALE
Successful Western farmer living at Rocky Ford, Colorado

Use Subscription Order-Blank on Page 31

Miss Selina Lue and the Soap-Box Babies

By Maria Thompson Daviess

Illustrated by Ruth M. Hallock

Miss Selina Lue

EDITOR'S NOTE—Here is the beginning of our new serial, and the editor wants to introduce you to Miss Selina Lue. You cannot help but like the story, which will run for three or more months, and it is just impossible not to love Miss Selina Lue and her soap-box babies. The story is filled with real human interest and though it is a wholesome, merry story with many a hearty laugh in it, yet it teaches a lesson of unselfishness which it will not hurt any one of us to learn.

CHAPTER I.

Ethel Maud Sews Her Thumb

"If grown-ups would jest chaw one another's good luck, they could get a heap of satisfaction from it."
—Miss Selina Lue.

"MISS SELINY LUE! Oh—Oh—o—ho, Miss Seliny Lue! Boo—hoo—hoo—"

"You, Bennie, honey, quit crying this minute and tell me what the matter is. Come here and let me see!" And Miss Selina Lue made a grab for the grief-contorted youngster who was dancing with excitement in the grocery door. "Now, where is the place? Put your hand where you hurt if you can't say it!"

"Oh—ho—ho, 'tain't me a-tall! It's Ethel Maud, and she's sewed herself in the sewing-machine and pa's cussing something orful and ma's sick to her stomick. Please, ma'am, come quick and git her out!"

"Lands alive!" said Miss Selina Lue as she reached with one hand for a sun-bonnet hanging on the wall and pulled the top on the pickle-barrel with the other. "Miss Cynthia, honey, can't you stay here for a few minutes until I can send Mr. Dobbs back to tend the store? And whatever you do, don't let nothing happen to the babies in the soap-boxes. The red-headed Flarity twin has been trying to turn his'n over all morning; watch him. Please hand me that turkey-tail duster hanging over there on the wall, while I straighten out my water-waves. They ain't nothing like burnt feathers or hair to bring up them that's in a faint, and I never go without 'em to burn." And after a quick glance into her little bedroom mirror, Miss Selina Lue hurried down the street, leaving an uncertainty as to whether the turkey-tail or her own soft waves were to be sacrificed in the cause of resuscitation.

"Gracious me, Miss Seliny Lue, who's hurt now?" called Mrs. Kinney from her side door, standing with a hot flat-iron dangling from her hand. Mrs. Jim Peters also hailed from her kitchen window, but Miss Selina Lue kept sternly on her course, piloted by the sobbing but important Bennie.

In the first of the three rooms that formed the Dobbs' residence Miss Selina Lue found the pathetic little figure of Ethel Maud hanging against the corner of the sewing-machine while Mr. Dobbs, red and embarrassed, stood trembling by the window, and the maternal relative of young sufferer leaned against a chair, white and heaving.

At sight of the deliverer, Ethel Maud gave a relieved whimper and her tousled head fell over on Miss Selina Lue's bosom, the depths of which were stirred by more than the mere suffering of a pinioned finger, and which took sympathetic note of sweating, masculine misery and white-faced, inefficient mother-flutterings.

"Hurry on over to mind the store for me, Mr. Dobbs," she said with a kind glance at him. "I can git her loose in a minute. And, Mis' Dobbs, quick as you can, set the kettle on the stove in the kitchen for some hot water to take out the swell. We'll be ready as soon as you git back with it." So, vastly relieved, with one accord the parents disappeared through opposite doors, thus leaving Miss Selina Lue with the limp and whimpering bag to hold.

"There, there, chickie-biddie," she crooned to the little white ear buried against her neck as she raised the arm and hand and with a quick, dexterous turn of the needle released the small pink thumb. "It ain't injured much. However did you come to sew your thumb?"

"We was trying to see what made the top of it go and she got in the way," volunteered Bennie, who was the only member of the family that had stood by the afflicted one. Although his distress had been genuine, there is an attraction to ten years in flowing blood, even though that same blood be consanguineous. "Shoo! that didn't bleed half as much as my toe did last week," he further remarked.

"It did! It did!" wailed the small sufferer, for the first time giving away to the to-be-expected lamentations of one injured. "Everybody stumps they's toes, but they didn't ever anybody get sewed up in a sewing-machine before."

Bennie was on the point of arguing the question when he was overtaken by swift retribution for his seeming heartlessness in the shape of a wet dish-towel that spanked across his shoulders with a sting.

"Bennie Dobbs, I am ashamed of you fer your unfeelingness to your little sister," cried his mother, who stood in the doorway with a cracked, yellow bowl of hot water in one hand and the towel in the other. "You are just like all men-folks, a-trying to make light of the sufferings of women which they can't none of you know nothing about. Men always look at women-troubles outen the little end of the horn. There was Dobbs standing there a-cussing me 'cause my stomick turns at the sight of blood, and him the one to unsew his own children if so comes they need it." Mrs. Dobbs was still white about the mouth, and the tears were still undried on her red, round, shiny cheeks. She slopped the water over Miss Selina Lue's shoulder and soused one of Ethel Maud's little pigtail plaits as she handed over the bowl with a sniffle.

"There, there, Mis' Dobbs, you know they ain't a mite of harm in Mr. Dobbs; and as fer cussin', looks like that sinful habit is all the let-off a man have got, while a woman can break up dishes, slam the stove-lids, spank the children, and make herself a cup of tea to ease her nerves, and nobody even knows she's upsot."

"That's all very well for a woman that's as free as you is, Miss Seliny Lue; but a married woman has feelings you can't never understand, and one of 'em is a cussing husband."

"That's so, and I reckon I can't hardly sense your feelings in that case, but if I had a-married, and he had a-felt a cause fer cussing—There now, she's done droze off with the soothing of the hot water! Open my bag there and git me that old linen handkerchief tored into strips. Don't take off this rag to-night, and I'll fix it again in the morning." Miss Selina Lue laid the relaxed little figure on the bed without causing a tremor of the white eyelids.

"Law, Miss Seliny Lue, it do seem a shame you ain't got ten of your own, you are that kinder hovering-like with them. I shore am sorry for you," said the grateful mother as she jabbed in the dart of her sympathy with a smile.

"Well, I don't know but it's best as it is," answered Miss Selina Lue with spirit, "fer you all are so good about letting me help with your'n. People kinder grow along towards what they think about; and as I think baby-tending a good part of the day, come night I feel like I was the mother of twenty. Mind not to take off that rag until I see it again."

In a few minutes Miss Selina Lue departed and attempted to hasten down the street, but was interrupted at every turn, it seemed. On the corner she met Mr. Dobbs, whose steps were faltering toward home.

"Miss Seliny Lue," he said sheepishly, with his face turned away from her, "if it had a-been Ben, now, I could—er—done it; but the little 'un—I—I—"

"Mr. Dobbs, I respect you for your feelings fer I seen the thought ter help were in your mind, but Ethel Maud is a slimsy little thing as would be hard for a man to handle. She is asleep, and I expect Mis' Dobbs have got your dinner ready by now."

"I thank you, Miss Seliny Lue, ma'am, and I do say as how you be the master hand with the young 'uns. I was jest a tellin' Miss Cynthie, who is a-waiting to see you, that it do seem a pity—"

Miss Selina Lue's progress down the street was resumed before Mr. Dobbs had exactly formulated the regrets he wished to express, but whose nature Miss Selina Lue inferred from experience.

But her hurried return to her own affairs was not to be permitted by the anxious neighbors along the path of duty which she had trod so excitedly with Bennie Dobbs an hour before. Mrs. Kinney had been sitting on the hot stove of curiosity, and her face was determined and her voice was compelling as she hailed from her stoop.

"Wait a minute, Miss Seliny Lue, can't you? Whatever was the matter with the Dobbses?" she said, dropping herself over the picket-fence as if she had come to hear the news if it took all morning and all the backbone she possessed to extract it.

"It was a bad accident, but it mighter been worse if she had a-run it in her eye, though that woulder been hard for her to do unless it had been something like a knitting-needle. A thumb ain't so much use except in peeling potatoes and sich, as a sorter balance-wheel for the rest of the hand," answered Miss Selina Lue, commencing in the dramatic part of the tale without any unnecessary preamble.

"Now, ain't that like Mary Ellen Dobbs? I never seen sich a person fer keerlessness. It's a wonder she ain't did it before! It will be powerful awkward to be without a thumb when it comes to going to meeting in a genteel way with gloves—"

"It was Ethel Maud, Mis Kinney—"

"Ethel Maud? Who ever heard of a child injuring her mother? Miss Seliny Lue, she must have the rabies. Maybe she was bit by a mad dog when her mother didn't know it. I reckon I better call my children on this side of the street till I see what happens."

"Mis' Kinney, ma'am, please wait till I tell you the straight of it. Ethel Maud sewed her thumb in the sewing-machine, and she ain't hurted bad at all. In a day or two—"

"Well, Miss Seliny Lue, I take it hard indeed that you let me get so upsot over the troubles of one of my neighbors that ain't anything at all. I never expected no such treatment from you that I calls—" Mrs. Kinney put her apron to her eyes and began to sniffle.

"Oh, Mis' Kinney, honey," pleaded Miss Selina Lue, with an eager pat on the heaving shoulder, "I wouldn't hurt your feelings fer worlds. Now, who but you coulder been so kind and thought up all them afflictions fer the Dobbses?"

"That's jest it," sobbed the friendly one; "I takes more interest in my friends' doings than I do in my own, and I don't believe they appreciate it like they oughter, neither. Sometimes they are so cold to me when I ask questions jest outen sympathy."

"Yes, they do, Mis' Kinney, honey, and don't you go to doubting your friends, which is a poor thing for anybody to do. When you want to sympathize with me I am always glad to git it and consider it a blessed thing to have, whether I need it or not. Sympathy is jest the pure juice of the heart squeezed out fer a friend."

"That's like you, Miss Seliny Lue, a-patching up people's hurt feelings and children with kind words and rags. I was a-saying to Mr. Kinney last night, when he went and got that cough medicine for Luella from you, that it's a plumb shame you ain't got a round dozen husbands and children of— Oh, must you go? Please, ma'am don't fergit to make me another mess of that medicine; she do cough so, come night."

The haven of her grocery door, her neglected business, and the shade of her own hackberry-tree which hung over the front stoop of the store lay in the sight of Miss Selina Lue, when another hail sounded from the other side of the street. Mrs. Jim Peters' shining face nodded at the window as she held up a small white bundle and beckoned by waving a tiny red hand.

"You ain't been in to see him fer two days, Miss Seliny Lue, and we's both gittin' downright hurt with you," she said. Mrs. Jim Peters was very, very young; Jim was also young and was conductor on the "Lectric;" and Jim Junior, was the youngest of all; in fact was of such a youngness that he was still blushing into fiery red with mortification over his very recent citizenship. Mrs. Jim was in that state of beatitude which

"'Dearie me!' exclaimed Miss Selina Lue. 'You all seem to be upsot!'"

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is only acquired by very young things when they acquire other still younger things on which to experiment in the way of flannels and pins and so forth.

"Don't you think he have growed?" she demanded "He will be four weeks old to-morrow and I have promised Jim to take him fer a ride on the ten-forty car. He wants to show him to Mr. Hill, the motorman. Poor man, he hasn't been married yet and we feel so sorry fer him! Jim said last night, when I let him hold the baby while I got supper, that he jest couldn't help but wish that Mr. Hill could have something to live fer. And I told him as that was jest the way I felt about you, Miss Seliny Lue. It do seem that if ever a woman— Oh, please don't hurry, I want you to see his feet, how they have growed, and I think if you could set down a spell he might smile like he did this morning!"

"Did he show any signs of colic last night, like them squirmings, and drawing up of his knees?"

"Oh, no, ma'am! I put the flannel band you sent over right on and Jim said when he brought it that there never was such a person as you for knowing what to do with a pain in a baby. People might think you had half a— Oh, good-by—good-by, if you must go! Look, he is kissing his hand to you!" and Mrs. Jim Peters watched her guest out of the gate dreamily. "My! I clean fergot to ask what was the matter with the Dobbses," she woke up and exclaimed to herself.

On the other side of the street, only a few hundred yards away, the cool door of the grocery yawned and the top branch of the hackberry beckoned in a friendly little breeze. Miss Selina Lue hurried her steps and as she walked she waved the turkey-tail in vigorous encouragement of the tiny zephyr. She was generous of proportion, was Miss Selina Lue, tall, broad and strong, deep-bosomed, and flashing of eye, though with a spirit of such gentleness that one might almost read as one ran.

At her door she was welcomed with enthusiasm. Miss Cynthia Page stood on the top step, in her arms a baby who was uttering a protest against the world in general, and Miss Cynthia in particular, in such a staccato volume of voice that his size could but be a surprise to the beholder. On the floor his exact counterpart, except in the matter of hair—that of counterpart being of the tone known in some walks of life as red-gold but called on the Bluff "carroty"—sat with solemn eyes chewing a string and clutching determinedly at the hem of Miss Cynthia's white linen skirt with grimy hands. Just behind him a pink-clad little bunch had succeeded in squirming between the pickle-barrel and a large bushel basket of snap-beans, and only the hind quarters and ten pink toes of the explorer evidenced her whereabouts. From a certain ecstatic wave of one leg it might be suspected that a find had been made and was being secretly and rapidly consumed. In the middle of the floor another infant lay prone, with legs and arms waving frantically, resembling nothing more than an overturned beetle heipless in its appeal to be righted before the world. And from behind the counter on the left there issued a voice, a voice that rose and wailed an accompaniment to the Flarity in Cynthia's arms that could not but impress the hearer. It was no fretful cry for attention and amusement, but was the howl of a soul in torment, hungry, hot, frightened, with a pain all over and in spots.

"Dearie me!" exclaimed Miss Selina Lue. "You all seem to be upsot!" And as she spoke she took the wailer from Miss Cynthia and reaching for Carrots on the floor, tucked him under the same arm with his brother, while she drew out by one foot the explorer and revealed the treasure, found to be a snap-bean, now partly consumed. The beetle shared the hollow of her arm with the explorer, but the voice from behind the counter wailed on unpacified.

"Miss Cynthie, honey, please pick up Clemmie from behind there and bring her on back here to the boxes." Miss Selina Lue spoke of the boxes as of stalls in a training stable. "Whatever did you let them out for? I am afraid you was pestered to death with 'em."

"Oh, Miss Selina Lue, they all began to cry at once and I didn't know what to do," apologized Miss Cynthia as she struggled to the back of the store with the voice in her arms still making itself heard, though the sight of Miss Selina Lue had brought it down a note or two.

"Oh, that's all right; crying's good for 'em, the darlings," said Miss Selina Lue as she deposited the wriggling load on the floor.

There was a large south window at the back of the grocery, and a morning-glory vine peeped in on one side and clutched with little tendril fingers at a group of sides of bacon that hung on the wall. A large yellow cat stretched on the sill in the sun, which poured in over him to the floor. Ranged back from the heat, but in the cool breeze, were five empty soap-boxes, capacious and clean, with calico cushions stuffed down each back. Miss Selina Lue shook out each cushion and deposited thereon a baby, picked from the group on the floor. Carrots came last and was enthroned with care on a "chiny-blue" cushion.

"Ain't he too sweet on that blue kiver?" said Miss Selina Lue as she smoothed the flaming kinks. A tender hand ran over each bobbing head and peace reigned in the River Bluff Grocery, whose back regions were given over to a hospitable day-nursery conducted on entirely original and also utterly unremunerative lines by its owner. With Miss Selina Lue to love was to minister, and she never dreamed that she was testing a widely-discussed and little-practised philanthropic measure.

"Miss Selina Lue, you are a wonder! How do you ever manage with them all the time?" ventured Cynthia as she stood by, disheveled and panting. Her cheeks were shell-pink and warm, little gold curls clung to her damp forehead. Her violet eyes were wide with admiration at Miss Selina Lue's generalship, but were given a desperate cast by a huge smudge on the side of her nose which had by accident tried conclusions with that of the vocally strong Clementine. Her hat had been pulled to a rakish angle and the starch was out of her linen blouse. She had the appearance of one who has fought a losing fight.

"Now, Miss Cynthie, honey, they was jest hungry. They's as good as gold most times; but babies is like human beings—they can't always be counted on to do the best they knows. It's time they was fed, and I better be about it. Want to stay and see 'em feed?"

Miss Cynthia had a number of times in her life heard invitations issued from various tented sawdust rings of which she was instantly reminded by Miss Selina Lue, and it was with something of the same feeling of trepidation that she accepted.

"Now," said Miss Selina Lue as she rolled up her sleeves and cleared the deck for action by drawing the boxes into a close semicircle around a three-legged milking-stool, "you can see how good I've got 'em trained, the darlings. I cook up this bowl of oatmeal outen that as spills outen the packages what bust, and I pour on a good dose of Charity's new milk, which is that of real human kindness, if she is just a spotted cow."

As she talked she seated herself on the stool and dipped out a spoonful of the sticky porridge dripping with milk. Instantly five small, pink, toothless or partly toothless mouths popped open and five bobbing heads became rigid and five roly-poly necks craned. The moment of suspense was keen. Presto! the spoon descended into the mouth of Blossom, the explorer. Her ecstatic gurgle had four anticipatory echoes. Again the pink caverns yawned and again the poised spoon descended, this time into the rosy lips of Clementine, who swallowed her portion with the remnant of her last sob. The echoes gurgled again and presented open mouths at attention instantly.

"Seems like," said Miss Selina Lue, "they all swallows one another's dinner and gits jest that much more pleasure outen it all. If grown-ups would jest chaw one another's good luck, they could git a heap of satisfaction from it, I say. Now ain't they good, and jest as patient, a-waiting their own turn?"

"Indeed they are just a cunning nest of baby birds, Miss Selina Lue, and you are the mother bird with the worms, the nicest sort of worms. You—you,"—Miss Cynthia hesitated, trying to give coherence to a thought Miss Selina Lue had heard voiced before,—"if you were being mother bird to your own you couldn't—"

"Miss Cynthie, honey," said Miss Selina Lue as she scraped the last drop of milk into the spoon and skilfully administered it to the nodding head of Flarity, the brother of Carrots, "I think the good Lord intended that a mother should come into this world with every child, but sometimes she don't git borned when it does; and sometimes—sometimes the mother is borned and the child ain't there. The mother job is one that ain't cut out to suit everybody and them it fits have got a duty laid on 'em strong, even if it is jest being a kinder soul-mother. Don't let Clemmie fall and cut her head on the edge of her box! She is nodding so and I have to ease down both the Flarities, who is plumb gone. Thanky, child, they are all safe now and I can git to work. Seems like my heart is at rest when I've got 'em asleep in the soap-boxes. I sometimes wonder if the Lord don't feel the same way about us grown-ups when He sends the night down to kiver us up in our beds. But then, when He's got us all safe asleep the folks over in Chiny wakes up and begins they devil-tries, so I reckon the Bible is true when it says, He neither slumbers nor sleeps."

[TO BE CONTINUED]

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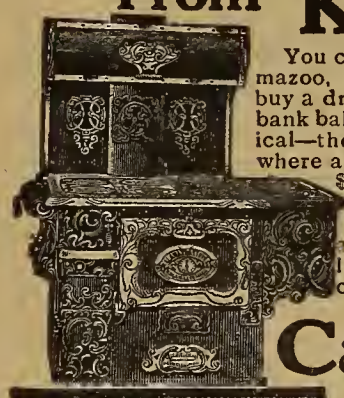

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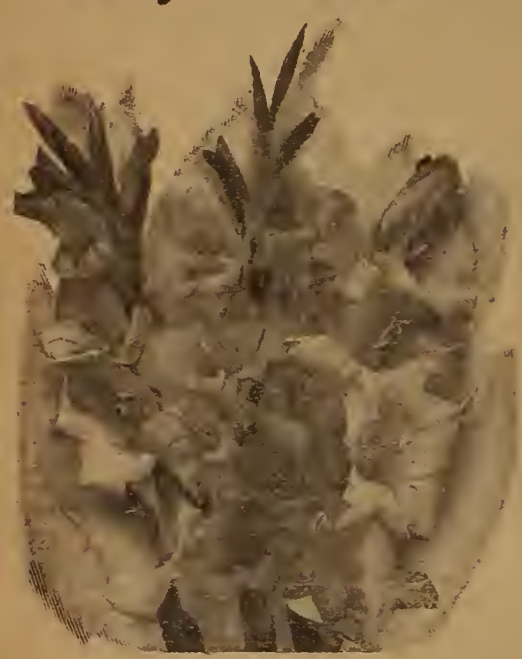

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FARM AND FIRESIDE, Springfield, Ohio

Sticktoitiveness

By Frank E. Channon

AS LONG as there are ships with guns upon them, and men who work and fight them, just so long will popular interest center around our navy and her gallant boys. All the strong nations of the world have always been nautical. It is fitting, therefore, that this young, strong and vigorous republic, in taking her position as a mighty world-power, should show a healthy interest in the welfare and efficiency of her navy, with its brilliant past.

That mighty assemblage of war-ships that was reviewed by Ex-President Roosevelt last year at Hampton Roads was what might be termed "An eye-opener." Followers of the growth of the navy knew we had the ships; they were there on paper, but until they lined up there, in all their suggestive impressiveness, the forceful, telling lesson of the review was not trammed home to them.

There lay the grim dogs of war, ready in commission, armed, stored, officered and manned, waiting but for the nod to swing into battle line and fight for home and country. The ships were not laid up in dockyards, out of repair and out of commission, with their personnel ashore drawing their pay and holding down some soft billet, but out there on the rolling ocean, alert and trim, and "ready, aye, ready."

No one could look at those great squadrons and have the slightest doubt as to their readiness for any emergency. The whole fleet spelled "smartness, efficiency." If you doubt it, go amongst it, live with the "boys," as the writer has done for two years; see the spirit that animates them; watch them at their work and their play; at their mess-table and in their hammock; hear their speech and song; go with them on shore liberty, cling to the lurching rail as the great ship rolls in the heaving sea, and watch them handle her, and then come away and say our Jackies don't know their business or have not their whole heart in it—aye, say it if you can!

Tough? No, the men of Uncle Sam's navy are not any more so than any other large body of men gathered together in any other walk of life. There are always "bad eggs" in every profession, but the good ones in the navy outnumber the bad ones a hundred to one. The average Jackie is a gentleman, first, last and all the time. I have witnessed some of the finest, most chivalrous actions that it is possible to imagine performed by, not one, but many of the enlisted men of the navy; actions in which self dropped entirely out, and in which only the higher and nobler traits of the human character showed.

Nine out of every ten men ashore or afloat are brave, and it goes without saying that Uncle Sam's boys are all that the word means. On that "Blazing Scroll of Fame" that sheds its luster so brilliantly across the records of the United States navy are found the names of many heroes; men whose names will live as long as the history of the United States lives, and the sea dogs of Uncle Sam are the same to-day as they were yesterday, and they will be found the same, ready and waiting, if ever that day of trial comes when the people ashore look to their boys afloat to uphold the dignity and safety of the republic.

Now, what kind of a boy is this upon whom we lean for our strength afloat? First, and most important of all, he must BE GROUNDED RIGHT. The department wants no morally deficient lads in the country's navy. He must know RIGHT from WRONG, and be willing and anxious to do THE RIGHT. Many and many an enlistment record ends with that pointed sentence: "Discharged as undesirable." That last word covers a multitude of shortcomings. Then there is the more charitable: "Discharged for inaptitude," which is also far-reaching in its meaning. The "ordinary" discharge means: "Well, you did fairly; might do a lot better; try again." The "honorable" discharge spells: "Well done! here is some extra pay for you; enlist again within three months and start your 'C. S. C.,' with its many advantages."

"C. S. C.?" Why, that stands for Continuance Service Certificate. All of the old hands carry one of those leather-protected parchment records—their life's work is represented on its pages. But nowadays the aspirant young man-o'-war's-man can leave that C. S. C. far behind him if he wishes to. He can push his way up through all the ratings from apprentice seaman to chief petty officer and on up into the commission ranks until he climbs the last giddy pinnacle of success and is retired as a rear admiral. The prize is there to be won for the winning. All he has to do is to "Try, try, try again"—that old proverb that has spelled success to many a lad.

Down at the navy-yard, Washington, D. C., where they turn out the big twelve-inch guns, is located "The Seaman's Quarters." Here you will meet with the brightest of our sailor lads attending the "Seaman's Gunner's Class." The class varies in numbers. Sometimes there are a hundred boys there—sometimes only fifty. They are sent there from all the different vessels, upon their own application to the Navy Department. Their request must be approved by their commanding officer, who, of course, uses his discretion in approving only those applications which are presented by good and promising men and boys.

The course here is thirteen weeks of preparation and three weeks of review. They work about seven hours a day, and although watch is stood and other duties of shipboard performed, the students may have six evenings out of the seven to themselves. This does not mean that they have shore liberty every evening, although that is granted very frequently, when requested. The class is divided into two watches; one goes on when the other has shore liberty. Many of the lads have rooms "ashore," as they will call it, although the Seaman's Quarters is a pretty substantial brick building, and not by any means afloat.

To these rooms the students retire when on liberty, and there continue their studies. The watch on duty "grinds" at the quarters, with the exception of one or two who are doing sentinel work.

Their first week consists of forging and welding; the second soldering and annealing. Then they go into the shops learning all about the construction, assembling and mounting of the rapid-fire guns and the big ten and twelve inch ones. They are taught how the shrinking of the jackets is done, all about the breaches and the charges required for each gun.

On Monday of each week an examination is held, when all are required to pass on the subjects studied or be thrown back a week. At the end of the course a final examination takes place and, of course, the boy must pass, if he wishes to graduate and go on to Newport, to receive his final education in the torpedoes, when, if he passes, he becomes a "seaman gunner," receives extra pay, and in due time can make his application for examination for the rank of warrant officer with its pay of twelve hundred a year and all its brilliant prospects.

Of course some fail, and are "sent to sea" again, but most of them get through with flying colors. Nearly all are "out for the goods," as they will tell you, and win out. Those are the boys who study. They are not those who, the moment they are granted leave, rush out for the nearest billiard-room or theater—no, no. Instead of that you will find them "grinding." The weekly letter from some correspondence school lies open before them; their books are scattered over the table; pens and paper are before them. At such times the cigarette is conspicuous by its absence. A few pipes are in evidence, but not nearly so many as you would think, considering the reputation Jack has for smoking. The low buzz of conversation sounds, as the students ask their questions and receive the replies.

There are no drones here. If there are, they are ashore having "a good time" (?) or curled up in their berth aloft, snoozing away their opportunity. You will see the word "failed" written opposite their name after the final examination, with an added: "Recommend that these men be sent to sea."

I can place my hand on the current Naval Register and point out to you the names of fifty or more boys who were plain "Seaman So-and-So" when I was down at their quarters a year or so ago, who are now on the warrant officer's list, and two, I can show you, who are now in the commission ranks, with every prospect of retiring rear admirals.

These are the boys who stuck to it. These are the boys who, in spite of every obstacle, fought their way gallantly and doggedly on, refusing to quit, refusing to give in, and utterly and uncompromisingly refusing to be turned from their course by the minor and more frivolous amusements that lured their less resolute companions from the road to success.

They won, and won because they had grit. They exemplified that newly-coined word: "Sticktoitiveness."

A Page for Mothers

Country-School Problems

Indifference of Parent

WHEREVER the "little red schoolhouse" is neglected in a community the man desirous of buying a farm and locating there with his family had better seek a better neighborhood, as there is always a good reason for the decline of interest in education. The country schools have always supplied to the world the brightest and best men and women of the times, and wherever fathers and mothers are awake to the needs of the hour they are still doing excellent work. Circumstances often compel a live, progressive family to move into a dull, apathetic neighborhood, and when that is the case the best thing is to hunt up the cause of the country-school problem, and get it out of the way at once. Most of the troubles must be laid to the lack of interest shown by parents, though there are minor causes that contribute to the downfall of education in some localities.

Last spring a teacher held a little picnic and entertainment in her schoolhouse for the parents and pupils on the last day of school, and it was delightful to see how the building was crowded with earnest listeners for the literary part of the program, and then how all enjoyed the feast of good things to eat afterward. Everything was bright and happy and alive, and the children were getting the idea that their parents placed a high estimate on education. Not five miles away in another district two parents attended the last day of school exercises and the sorry picnic, and the discouraged teacher resolved to seek out a more appreciative district for her next term. She had worked with might and main all the school year without a bit of help and encouragement from the indifferent parents, so she concluded that she might as well seek a more pleasant field in which to labor. Of course she received her salary regularly, but like every other human being, she craved appreciation. Good teachers naturally are picked up for the good schools, and the next year that district was presided over by a woman who cared for nothing but the money she received for staying in the building with the children.

Strange as it may seem, there are parents who could not tell, if their lives depended upon it, what books are used by their children at school. They may take enough interest to growl about the expense when a new book is needed, rather than feeling proud that the children are advancing, but the interest is transient, and the mind soon goes back to live stock or home duties. My heart always aches for the bright boy or girl who never hears a word of encouragement at home, and it aches still more when the parents positively discourage the desire for an education. If statistics could be gathered of the boys and girls who have been thwarted in their efforts to secure educations by stupid parents, the figures would surprise the whole nation. "What's the use?" is the cry of the unenlightened parent. "You can make money without book learnin'!" as if money were the only thing in the world.

It is uphill work trying to arouse the dull parents, but if you cannot get out of the community, do your best for the sake of your children and the children of your neighbors to awaken a little interest. Invite the teacher to your home, help her in her work, encourage your own boys and girls, see that good teachers are chosen, improve the surroundings and talk school wherever you go. Especially interest the young people, for the older ones will soon have no children to send, and in every way create public sentiment in favor of better schools. Of course the easy way is to sell out and move to a wide-awake community, but that isn't always possible. You may fail to do much for the children almost out of school, but you can help the little ones and that is a great thing. So, instead of regarding the problem as hopeless, get to work to solve it this very fall and winter, for there is no telling what one active, alert family may do for a district, and there is nothing lost by trying. HILDA RICHMOND.

What to Do for Burns

BAKING-SODA applied dry or wet will give instant relief in the case of a burn, as will also the yolk of an egg beaten with a little linseed-oil and applied lightly with a feather. A white of an egg may be used in the same manner and will allay the pain at once, the egg forming a coating which excludes the air perfectly.

TO PREVENT burns or scalds from leaving scars, cover with cotton batting on which has been spread a thick layer of butter, vaseline or sweet-oil.

Children's Inheritance

The Social Part

A NUMBER of little barefoot girls were playing by the brook when a prim little maiden in shoes and stockings sauntered along the bank looking wistfully at them, but when invited to join in their great fun she explained that her mother would not allow her to take off her shoes and stockings. When pressed for a reason, she artlessly said, "My mama says I'll get big feet if I run barefoot, and then I won't never have a beau when I grow up." That mother spent more time in teaching her little girl what not to do and what to do, so she would grow up to be a pretty, popular young lady, than she did on the child's religious training, and the poor little thing was really filled with the idea that to "get a beau" was the chief aim of a girl's life. As a matter of fact it should be taught little girls that many boyish sports in which their little hearts delight are not for them, as it is their duty to be little gentlewomen, but there should be times of recreation when dignity is thrown to the winds.

And while it is not necessary to give boys and girls to understand that the social part of life is all they are to train for, it is important that not only when they are young ladies and gentlemen they should be popular and well bred, but when they are children as well. Everybody likes a well-behaved child, and good manners will unlock every door. More than money or brains good breeding will win its way, and the parents who give their sons and daughters an inheritance of good manners have done more than if they had a storehouse filled with wealth for them and nothing in the way of training. To know how to eat and how to deport oneself anywhere and everywhere, to be able to listen without looking bored—in short to be refined and well bred—is the right portion of every child, and no father and mother have done their duty by their family who have not instilled into the youthful minds the importance of good behavior.

The best way to teach good manners is to never permit the children to know that any other kind exist in the home. Only well-bred people should be invited to the home, and the most scrupulous care taken to observe the rules of politeness at all times. It doesn't waste time to say, "Good-morning" or "Thank you" or "If you please, and children early fall into the habit of doing these things, if accustomed to them from infancy. Allowing the children to invite guests frequently helps the good work along, and making the home especially attractive for the little home holidays, such as birthdays, Thanksgiving and Christmas will help impress the lessons of politeness. Since children are largely stomachs at an early age, a treat when they have tried hard to be polite and attentive to guests in whom they are not particularly interested will do a great deal of good, though in the long run example counts more than anything else.

The little moral stories told in the family should point out the fact that polite children are always liked and that they get along much better than ill-bred ones, and when not too near home to make trouble, a particularly good example of the impolite youngster should be pointed out. In general, the talk should run to good little children rather than to bad ones. Especially should well-bred young ladies and gentlemen be spoken of to the growing boys and girls, as they are hero-worshipers at an early age and very susceptible to grown-up examples.

So if the children never know anything in the home but the law of kindness and refinement, they will have their inheritance without waiting till father and mother die, and it will be a portion that will do them more good than any amount of money. If they can have the money along with the education in good manners, well and good, but if they can only have one of the two, by all means let their portion be the invisible and yet always visible rich possession of refined, courteous bearing at home and abroad. H. R.

Remedy for Earache

A HOMELY remedy for earache is the heart of a roasted onion applied hot to the opening of the ear and bandaged on tightly. Should there be a discharge from the ear syringe it with tepid castile soap-suds to which has been added a few drops of carbolic acid.

For Tender Feet

FOR tender, aching feet there is nothing better than a strong solution of boracic acid. After bathing with this, dust the feet well with powdered talcum to which a little salicylic acid has been added.

A Boy's Mother

IT IS to no ordinary hand that falls the rockings and spankings of future presidents! Ostensibly any woman may be a girl's mother, and find her efforts crowned with success, but with a boy's mother it is different. From the very first day of a boy's introduction to atmospheric existence, when his paternal progenitor receives the congratulatory hand-grasps of his friends—the congratulations that are bestowed with more zest than had the new-comer been a girl—the discipline toward the making of a boy's mother begins. Regretfully does she watch the energetic young scion kick his way through dimity garments dear to her feminine heart. There are thrills of maternal joy at the first tooth, and pulsations in the domestic realm at the first step. Little by little the finger-marks on the doors and windows ascend, and by and by the baby garments are folded away, the long curls—those dear, beautiful baby curls—are shorn, and the heir to the throne is self-announced.

Then follows an age of bruises and bumps and grief. There are fingers to be tied up and healed with rags and kisses and love. There are tears to be wiped away, manly tears they are, too, and there are whole wells of sorrow to be absorbed by the rays of sunshine from a mother's eyes.

Then comes the exploring age. The whole world seems to be in delightful solution to be reached for and spilled. Who but a mother could invent excuses therefor, and then put the soluble world on a higher shelf. Who but a mother could remove traces of ink and jam so that no stain bears willing witness to juvenile marauders?

The successful mother of a boy must be an intelligent, versatile person. She must know how to rig a ship and cover a ball; she must know how to make a kite and a paper hat and work fractions and make cookies and trousers and turnovers. The mother a boy can depend upon will save all the pieces of twine, and when she has a neat ball of it, she will offer it at his shrine ungrudgingly. She will plan little surprises in the shape of stray pie and dessert and dishes of custard and other delectables, carefully hidden away till a time when a boy has a sharp edge on his appetite. She feigns not to see him when he slides down the banister. She allows him to make flour paste and lemonade; and when she sweeps, if the marbles roll and roll and seek snug, inaccessible hiding-places, she patiently captures them, and puts them away for a time when a boy needs them.

A boy's mother entertains a proper respect for the contents of a boy's pocket—the nails, bolts, crumbs, taffy, screws, wire, bits of rope, pieces of rock, luckystones and other juvenile treasures; and when a boy loses his knife some one with a gentle voice knows where it is, where she placed it for safekeeping. When the boy is in trouble the same gentle voice intercedes in his behalf, and when he is in disgrace the sad look in the loving eyes is the hardest of all for him to meet. But there is some one to believe in him again, whate'er befall, some one in whose heart confidence never dies—nor hope—and a little voice within him sings of her. A boy's mother is his emblem of TRUTH in the world!

HARYOT HOLT DEY.

Health Hints

Those desiring to become plump and rounded should cultivate a taste for starchy foods—rice, macaroni, potatoes and vegetables of all kinds, particularly cauliflower, spinach and asparagus. Salads are good, but acids should be avoided as far as possible. Sweet desserts should be chosen, particularly those containing eggs and milk. Plenty of fresh bread should be eaten.

Pure fresh water is another factor—some make it a rule to drink a glass of water every time they pass the faucet or water-cooler. Remember, there is no danger of getting too much—the more the better.

Among the medicinal foods may be enumerated spinach and dandelion, both of which act directly on the kidneys; tomatoes contain vegetable calomel and therefore stimulate the secretions of the liver; asparagus is a blood-purifier; celery is a nerve tonic and said to be a remedy for neuralgia and rheumatism. Lettuce and cucumbers have little nutritive properties, but are valuable because they cool the system. Beans and peas have great nourishing and sustaining qualities, while onions are useful for promoting digestion and overcoming insomnia. They are also said to clear the complexion if eaten daily in some form or other.

A DOCTOR'S SLEEP

Found He Had to Leave Off Coffee.

Many persons do not realize that a bad stomach will cause insomnia.

Coffee drinking, being such an ancient and respectable form of dissipation, few realize that the drug—*caffeine*—contained in the coffee and tea, is one of the principal causes of dyspepsia and nervous troubles.

Without their usual portion of coffee or tea, the coffee topers are nervous, irritable and fretful. That's the way with a whiskey drinker. He has got to have his dram "to settle his nerves"—habit.

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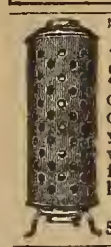

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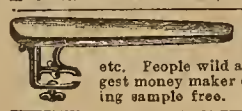

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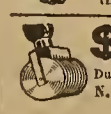

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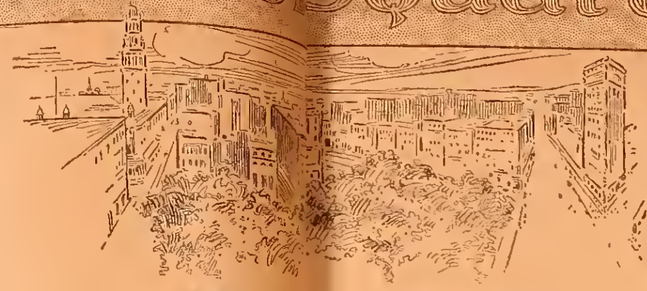

Practical Moyen Age Dresses

THAT the new fashions for fall and winter are taking on a more practical form than has been seen in many a long day is specially illustrated by the vogue for smart tailored dresses. These dresses are a decided feature of the fall fashions and yet their key-note is extreme simplicity.

Many of them are made in Moyen Age style, and there is a certain refinement and practical air to these new Moyen Age dresses very far removed from the picturesque and eccentric stage costume from which the idea first started. Such materials as light-weight mannish suitings, serge, cheviot and broadcloth are used for these plain dresses, which are made up generally with a yoke of coarse lace or linen in its natural color wrought with an embroidered design. Many of these dresses will also be made of velveteen with a touch of fur as their trimming. The majority are made with a full-length sleeve, though there are a number showing the seven-eighths sleeve with an undersleeve matching the yoke. The waist is close-fitting and sometimes it is braided, the braiding extending over the deep hip yoke.

The Moyen Age dress may be in one piece or it may consist of waist and skirt. In the latter case the joining is made as invisible as possible A new French idea, which has much that is practical about it, and comes from no less a well-known establishment than Cheruit, is a costume consisting of a very simple little one-piece dress made of blue silk cashmere and worn with a long coat of rough serge in mixed bronze-green shades. The coat is lined with satin the same shade of blue as the frock. It has a notched collar, very deep cuffs and trimming-tabs on the pockets of broadcloth of the same shade of blue as the satin lining. Because of this touch of blue on the coat, the gown really matches it—that is, it has a color note in harmony—so that they may be worn together, while the coat may not only be used as part of the costume, but may serve well as a separate coat when necessity demands it. Rather economical for a French idea, isn't it?

All the tailored dresses are made with short skirts, and not all of them, by any means, are made in one piece. Very many consist of a plaited skirt with a deep yoke and close-fitting waist, the waist, of course, matching in color the skirt.

In regard to trimmings, novelty effects in braid will be the height of style this fall and winter. There are new ideas in braid frogs and in braid ornaments in festoon and pendent effects. There are braid buttons and odd little braid novelties which look like tassels.

Generally the braid used matches in color the costume, though if one prefers, it is quite as good style to have it in a tone darker. Much braid will be used this autumn combined with jet.

The high collar is to be fashionable again. With the tailored costume, turnover embroidered linen collars will be worn, and also standing collars made of real lace. In neckwear the jabot is to be just as much the fashion as ever. Among the favored novelties is what is known as the side-band jabot made of batiste and lace. This novelty has the jabot frill only at the left side, caught to the center band of lace

No. 1077—Princesse Apron

Pattern cut for 6, 8 and 10 year sizes. Quantity of material required for medium size, or 8 years, two and three fourths yards of twenty-seven-inch material, or two and one fourth yards of thirty-six-inch material

No. 1370—Double-Breasted Coat With Belt

Pattern cut for 32, 34, 36 and 38 inch bust measures

No. 1369—Kilted Skirt With Yoke

Pattern cut for 22, 24, 26 and 28 inch waist measures

No. 749—Princesse Petticoat

Pattern cut for 36, 38, 40 and 42 inch bust measures

Back View of No 1398

This illustration shows the back view of pattern No 1398—One-Piece Moyen Age Dress. The Moyen Age effect is one of the most fashionable of the season. Use soutache braid in the same color as the fabric of the dress, or in two colors, one being the same color as the dress, to outline the elongated waist

No. 1398—One-Piece Moyen Age Dress

Pattern cut for 12, 14 and 16 year sizes. This style dress with its elongated-waist effect and full skirt will be much worn by young girls this autumn. It would develop well in serge or cashmere. Use white tucked net or silk in self-color for yoke and undersleeves. The pattern is an easy one to make

No. 1381—Ten-Gored Skirt—Box-Plaited Effect

Pattern cut for 22, 24, 26, 28 and 30 inch waist measures. Length of skirt all around, 41 inches. Quantity of material required for medium size, or 26 inch waist, six and one half yards of thirty-six-inch material, or five yards of forty-four-inch material

No. 1373—Modified Moyen Age Skirt

Pattern cut for 22, 24, 26 and 28 inch waist measures. Length of skirt in front, 43 inches; sweep at back. Quantity of material required for medium size, or 26 inch waist, five and one half yards of thirty-six-inch material, or three yards of fifty-four-inch material

Good Taste in Odds and Ends

IT REQUIRES very little money to dress well, but a great deal of good taste. Odds and ends in dress, belts, shoes, veils, neckwear, the small accessories that do so much to make or mar the right impression, it is in these that taste especially counts. "Finishing touches" they are, and so to be effective they must be a harmonious part of the whole.

No matter how pretty the frock, its artistic effect is spoiled by an ill-chosen ribbon or a haphazard belt.

Every woman knows that even if she does have a smart-looking coat-and-skirt suit, she can entirely ruin its chic effect by wearing with it an inappropriate hat and gloves in a discordant shade.

The most frequent error against good taste in the details of a costume is in allowing them to be too conspicuous.

We all know what an irritating, restless impression is made by a room in which everything is decorated—every chair has its "tidy" and every sofa-cushion is embroidered; the carpet has one pattern, the furniture covers show another, the portières are stenciled and the window-hangings are bright with gay flowers. Nowhere can the eye turn for a second's rest.

Now what is true of a room is equally true of a costume. An embroidered collar, embroidered belt, embroidered blouse, fancy shoes, fancy stockings, elaborate handkerchiefs, all may be charming if taken individually; but when all are used at once, without much thought of harmony, to deck one person, the effect is, to say the least, bewildering, and consequently in bad taste.

In regard to neckwear that is a "finishing touch" that has the right to individual character. Our faces and hands have, if not always the interest of beauty, at least that of personality, and any trimming that leads the attention toward these features may be as effective as you wish, provided that they do not destroy the harmony of the costume as a whole.

As in winter our gowns and blouses are of heavier material than in summer, the dressing of the neck should be simpler. There is a nice relation between elaboration of trimming and the weight of stuffs, and though we may not analyze it carefully, we should recognize that a thin lingerie blouse requires more ornamentation than a silk blouse of winter weight. The standing collar of a blouse of silk or flannel may be embroidered or worn with a ruche, or if plain, with a dainty turnover, but large bows and jabots are inappropriate for winter blouses, because they give the effect of heaviness to the neck. A silk cord of the same color as the blouse running around the base of the collar, tying in front with loops and tassels to match or of gold makes a suitable finish, while an artistic chain of inexpensive beads or of gold, with perhaps a dangle, remains the best neck decoration for winter.

The most effective way for avoiding a clumsy treatment of the neck in winter gowns is by inserting small guimpes of lace or net or by applying small odd-shaped yokes of guipure, for by these means a slenderness of the throat is preserved.

An additional effect of daintiness is easily obtained by opening the blouse at the left of the front and trimming the opening with an embroidered band or knife-plaiting of silk or net. By placing the frill at the side, the fullness of the jabot immediately under the chin is avoided, while the long and becoming line on the front surface of the blouse is retained. The greatest advantage of this treatment over detachable stocks and bows is that we avoid the temptation to catch up from our assortment, in the hurry of the moment, whatever is nearest, and wearing it regardless of its suitability.

A little thought, a little care, a regard for their inherent purpose, a feeling for their relation to their surroundings, and good taste in odds and ends becomes an established habit.

No. 1406—Tailored Shirt-Waist

Pattern cut for 32, 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-four-inch material, or three yards of thirty-six-inch material

No. 1304—Waist With Turned-Down Collar

Pattern cut for 32, 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and three eighths yards of twenty-four-inch material, or two and one fourth yards of thirty-six-inch material

No. 1305—Seven-Gored Skirt

Pattern cut for 22, 24, 26, 28 and 30 inch waist measures. Length of skirt all around, 41 inches. Quantity of material required for medium size, or 26 inch waist, seven and one half yards of twenty-four-inch material, or five and one fourth yards of thirty-six-inch material

No. 1304 and No. 1305

MADISON SQUARE PATTERNS

For every design illustrated on this page we will furnish a pattern for ten cents. The Madison Square Patterns are very simple to use. Full descriptions and directions come with the pattern, as to the number of yards of material required and how to cut, fit and put the garment together. The pattern envelope shows a picture of the garment. All of the pieces of the pattern are lettered, so that even if the collar in the pattern should look like the cuff, there is no possible way of mistaking one for the other, for each bears its own letter identifying it.

Send orders to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City. When ordering, be sure to comply with the following directions: For ladies' waists, give bust measure in inches; for skirt, give waist measure in inches; for misses and children, give age. Be sure to mention the number of the pattern you desire. Satisfaction guaranteed.

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This style book will make you familiar with all that is newest in the fall and winter fashions. It will tell you all about clothes for the little folks as well as the grown-ups. It costs a few cents more than the one we last issued, but it is well worth it.

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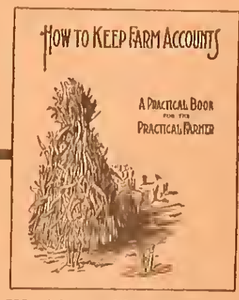

Would you like to know exactly how you stand at the end of each year?

Your bank balance does not always tell the story—perhaps more acres or new machinery or the new team has cut into the bank balance.

You know of course whether the year has been a good or a bad one, but you want to know just what you are worth so you can look yourself over every year.

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Farm and Fireside
Springfield, Ohio

OUR YOUNG FOLKS' DEPARTMENT

Doris and the String of Coral Beads

By Carroll Watson Rankin, Author of "Dandelion Cottage," etc., etc.

Doris, with her very best coral beads about her neck, was skipping cheerfully down the last section of the fire-escape. It was really less dangerous than it sounds, because it was not a frail iron ladder, but a sufficiently stout, outside, iron staircase, built by a landlord with original ideas. It led to the inner court of the Bayswater Flats.

There was no fire to escape from except the necessary one in the gas range in the stuffy little kitchen, but even that mild blaze seemed a good thing to flee from sometimes. The building was eight stories high, but since Doris lived only half way up, she didn't have to climb quite all the fire-escape.

Doris, who was an unusually active young person of eleven, was going down to her tree. It wasn't really Doris' tree—oh, dreadfully far from it. The lovely, brave, budding thing belonged to the very crossest "lady" that the whole big tenement contained. This was Mrs. Finnegan, who lived on the ground floor, with, it seemed to Doris and her friend Bettina, one eye perpetually glued to the tree. It was said that she kept her fortune buried under its roots; but that seemed hardly probable even to Doris, who believed almost anything.

The shapely tree, with the bit of grass beneath it, was the only growing thing within sight of the tenement windows. It grew in the center of the oblong inner court, and all about it, for many stories high, were dingy brick and stone walls.

Doris, reaching the warped brick pavement, looked cautiously about her. Finding the coast clear, she tiptoed to the little budding tree, seated herself on the tiny patch of turf and lovingly rubbed her cheek against the smooth bark.

"If it weren't for you, you sweet, live thing," said Doris, "and for that great spider-web of clothes-lines and my dear Bettina, all the world would be just gray stone walls with horrid, untidy windows."

A moment later, evidently emboldened by Doris' example, a slim girl on crutches hobbled across the court, smiled a greeting to the fire-escape lassie and paused uneasily at the edge of the grass.

"Sit down, Bettina," urged Doris, hospitably.

"Not much," said the lame girl, with a wary glance toward the closed door of one of the ground-floor flats. "You know I can't get up easily enough."

"But this is the time she takes her nap."

"She doesn't take 'em hard enough," said Bettina, shaking a wise, curly brown head.

"Wouldn't it be nice if she were one of the seven sleepers? Did you ever lie under this tree in summer and look up and imagine that it was a whole woods?"

"I used to wish," said Bettina, holding her head far back to gaze upward, "that there'd be one day when nobody had to do a single bit of washing, so I could see if there really is a sky overhead. Why! I do believe I can see a bit of blue!"

"That's only Mrs. Jenning's blue quilt," said Doris. "But you're on the ground floor. You can see the sky from the street."

"No, I can't," said Bettina, coloring. "The street children make game of me."

"I forgot," returned Doris, apologetically.

"Scat!" cried watchful Bettina suddenly.

Doris "scatted." At the top of the first section of the fire-escape she paused to look back. Bettina had vanished. Scowling Mrs. Finnegan stood in her own doorway silently but vigorously brandishing the stout pancake turner with which she had once publicly spanked little Adam Powalowski.

Of course neither Doris nor Bettina would have dreamed of harming the little tree—both loved it far too dearly for that—but apparently cross Mrs. Finnegan was unable to discriminate between moderately good little girls and decidedly bad little boys; she treated them all with the same disfavor—and the same pancake turner.

While Doris gazed downward, a small, red-headed boy darted from a cellar doorway; tore up a clod of grass from the plot about the tree, hurled it defiantly at Mrs. Finnegan and turned to beat a hasty retreat. Undoubtedly he would have escaped, as he had often escaped before, but just at that unhappy moment the Hansens' baby, five stories up, pushed its bottle off the window-ledge. The bottle, spattering him with milk, crashed to bits directly in the boy's path. Dodging back to avoid other possibly descending bottles, the lad tripped over a loose brick. In another moment Mrs. Finnegan had him across her knee with the pancake turner doing full duty.

And then, as keenly interested Doris peered downward, something at the back of her neck suddenly gave way. Down went her precious string of coral beads that had been sent to her direct from Capri.

Mrs. Finnegan, panting a little from her recent exertion, but still clutching the pancake turner, stood in her doorway; she had not noticed the falling beads, but Patsy Doane, peering around a basement door-jamb, had seen them strike the pavement. Little escaped Patsy's keen eyes. Now, with his eyes on the pink spot, he edged closer.

"Dear me! said Doris, beginning to creep slowly down the staircase. "If that dreadful boy gets there first I'll never see those lovely beads again. All boys are horrid."

Patsy, fairly hugging the wall and keeping a watchful eye on Mrs. Finnegan, edged toward the pink beads. Doris continued to creep downward. It was clearly a race and, owing to Mrs. Finnegan's terrifying presence, a race under frightful difficulties. Mrs. Finnegan's dreadful eye roved threateningly from one to the other, sending cold chills down both youthful spines.

"Oh," groaned Doris, quivering with fear, but still advancing, "I haven't a chance. That horrid boy will make a dive for them the moment Mrs. Finnegan makes a dive for me. He'll get the beads, Mrs. Finnegan'll get me—and I'll get pancaked."

Yet, fearing all this, down crept Doris, a step at a time. It was not customary to set foot in that particular portion of the court in Mrs. Finnegan's presence; and that lady, who had not seen the beads, began to look puzzled. This double advance was unusual.

Suddenly, to Doris' dismay, the boy darted forward; but instead of grabbing the beads, as she had expected, he paused between them and Mrs. Finnegan and began to prance derisively right under that astonished lady's nose.

"Now's yer chance," he yelled.

Doris was so surprised that she almost tumbled off the fire-escape. The words were meant for her. The boy was actually helping her.

Recovering from her surprise, Doris dashed down the remaining steps, seized the precious beads and flew up two flights.

"Thank you, boy," cried Doris, pausing on the second landing for breath, while Patsy escaped to his own doorway. "You're the bravest boy I ever saw."

"Aw g'wan," said the embarrassed Patsy. But he did not look displeased.

"A few boys," reflected Doris, as she climbed in at her own window, "are not altogether horrid. Mother! is it cake you're taking out of the oven? Do give me that small round loaf. I want to give it to a boy for helping me get my beads back. And I didn't think nice things about him—I've got to make up for that."

"Is he a nice boy?" asked Mrs. Parkman, handing Doris the cake.

"No," returned Doris, holding the cake high in the air for Patsy to see, and shrieking for him to catch it, "but, mumsey, he was nice to me."

Good News for Our Boys and Girls

Our Club Button

Dear Boys and Girls:—

I just feel like shouting, Hurrah! Hurrah! Hurrah! as loud as I can, for I am so excited about our club button—and now you know the splendid secret that I have been keeping all this time. One of these buttons will make you a member of "Cousin Sally's Club." Just see what a dignified looking button it is, but the original is much prettier than the picture here shown.

For a long time I have felt that while our department was a great success and you boys and girls have been just as helpful and enthusiastic as possible, yet we were not banded together in any firm and solid way. And this is just what Cousin Sally's Club will do: it will hold us all together in bands of strong friendship and will help us all to do great things and become splendid men and women. The colors of our button, royal blue and white, stand for truth and honor. The monogram "C. S. C." has two meanings; one is Cousin Sally's Club and—well, the other is the Club's motto which only club members may know. The little button costs only five cents and once you are a member of Cousin Sally's Club you will have no other expenses nor dues.

Lately I have received quite a few letters from my cousins saying how anxious they were to get up a club of their own. So I have thought of the following plan.

I would suggest that all members of Cousin Sally's Club form local branch clubs, composed of near-by members; it being understood that membership in Cousin Sally's Club is a necessary qualification for entrance into a branch club.

If any of you boys and girls want to get up a club of your own after you have joined Cousin Sally's club, I wish you would write to me for suggestions and plans, for I am only too willing and eager to help you in any way that I can.

Sewing clubs are always popular with the girls—and now that Christmas is so near at hand, don't you think it would be a splendid plan to organize a sewing club and at the club meetings make some little gifts for poor people or the sick in hospitals.

Then there are many different kinds of clubs for boys—reading and debating clubs are interesting as well as instructive.

But first of all, we must launch Cousin Sally's Club. We want it to grow to become one of the largest children's clubs in the United States. I want every boy and girl reader to become a member. It does not matter whether or not you are a subscriber to Farm and Fireside—you may become a member of the club by sending me five cents in stamps to cover cost of the button.

Right here I want to make it clear that every boy and girl whether a member of the club or not, is welcome to enter our monthly contests. We are all cousins just the same, and members and non-members may compete.

I am very enthusiastic about our club button and you may be sure I will always wear one. I am so anxious for you to see it. Write to-day for our button. I will send you a letter and tell you the club's motto, and just what you must do to be a good, loyal member. Send five cents in stamps and address "Cousin Sally's Club," care of Farm and Fireside, 11 East 24th Street, New York City.

Faithfully always,

Cousin Sally

Another "Dolly" Poem

Dear Cousin Sally, I'm going to try
To tell you about my dolly;
Margaret is her pretty name
My brother calls her Polly.
Her hair and eyes are very dark,
Indeed, she tries to laugh,
The next time that I write to you
I'll send her photograph.

Every night I dress her
And take her up to bed;
I put on her white nightgown
And cap upon her head.
Right at the side of my own crib,
I have her little bed,
I tuck her in—give her a kiss
After our prayers are said.

Rosena Mary Ford, Age Ten,
Marshallton, Delaware.

Prize-Winners in September 10th Contest

Onda Limbert, age fourteen, Arcanum, Ohio; Edith Youngberg, age thirteen, Lake Park, Minnesota; Nancy Howard, age thirteen, Industry, Kansas; Essie Mae Lee, age thirteen, Dallas, Georgia; Winifred Beckwith, age fifteen, Plymouth, Pennsylvania; Roy Emerson, age fourteen, Guy, Texas; Floyd Baisden, age thirteen, Athens, New York; Edward Clark Weight, age twelve, Bellwood, Pennsylvania; Arnold Henderson, age thirteen, Thamesford, Ontario, Canada; Francis Walter, age twelve, Celina, Ohio.

Little Jennie Repents

Jennie and Margaret had quarreled, and just to be mean Jennie told teacher that Margaret was whispering and writing notes. Consequently, Margaret was kept in after school closed. The next day Margaret hurried home to avoid meeting Jennie for she felt sad and unhappy to think that her best friend could have been so mean to her. But before she knew it, Jennie was running after her and calling out so that every one could hear—"Mag Stevens! You've taken my pencil! Give it to me." Jennie had noticed Margaret using a pencil similar to the one she had lost. She had forgotten that they had bought their pencils at the same store at the same time. Jennie just wanted to hurt Margaret's feelings.

"I didn't take your pencil," replied Margaret very meekly, the tears welling up in her pretty eyes.

"You did!" and Jennie's eyes flashed fire and she took a hasty step forward intending to slap Margaret, but just then her foot slipped and she fell on the ground groaning.

Margaret had started on her way home but she saw a team and wagon tearing down the street, and turning back she bent over Jennie and tried to help her up, but Jennie had lost consciousness. So Margaret, who never lost her presence of mind, quickly pulled Jennie away just in time to avoid what would have been a very serious accident.

By Ethel Thurston, Age Fourteen, Eaton, Ohio

When Jennie gained consciousness she found herself in Margaret's home with Margaret sitting by the bedside. She was bewildered when Margaret told her how she had saved her life. She threw her arms around her neck and kissed her again and again. "Oh, Margaret," she said, "You're just a dear to be so loving and forgiving and how can I ever thank you enough for your noble deed. Please say you forgive me, dear Margaret."

For answer Margaret just hugged Jennie closer and cried a little.

When Jennie was better, her parents took her home. To-day Margaret and Jennie are true, loyal, little friends. They love each other dearly and never again did they quarrel or say unkind things to each other.

Rena Love, Age Fourteen,
Winthrop, Iowa.

The Golden Glow of To-Day

To-morrow with most of us has a lure that makes us forget the steady, golden light of the present moment. Hope always holds out attractions for the days to come. That is one of the beauties of hope. Away on ahead, just a little way on, a few steps more, so whispers hope, we will find more glorious things than any we ever have dreamed of before. Wait till by and by and you shall come up to heights such as will make all the past seem poor and unworthy.

Especially with the young is this true. The lure of the time-to-come is so strong! The to-day passes for scarcely nothing. Only the days-to-be are worth thinking about. "When we get to manhood," so we dream, "there will be nothing but one long round of happiness and success." Great, glorious, beautiful to-morrow!

But really the to-days are all we ever will have. Every yesterday is only a to-day grown a little older. To-morrow will be another to-day when we come to hold it in our hands.

And if we are wise we will make the very best of the day now with us. Have you never said, "To-morrow I will make somebody supremely happy. I am so busy to-day! I must do so many things for my ownself! I have no time to think of those about me. This is my time to make money, to build up fame or fortune; if I do not use it, I never will be able to do half of what is in my mind."

The bitter part of it is, however, that when we reach the morrow, after we have made our fortune, when we are secure in the possession of the fame we have longed for, we will not want to do the good things; the passion to be what we used to think we would like to be has slipped away. It went with the stream that drifted on yesterday; it was burned up in the furnace which melted the gold we have stored away; it was ground to ashes between the millstones that turned out the yellow grist of success which now seems so empty a thing.

Don't Wait Until To-Morrow

The safest thing any of us can do is to say the good things right now and do them every day. If ever we are to enjoy ourselves it will be while working out the plans of the present moment. If we do not smile now, we will forget how to smile by and by. How many of us can be sure that the stream will run to-morrow? So let us drink deep of it now while it is full to the banks.

I know an old farmer who is now getting well on toward the century mark. He knows how near to the golden shore he is, and yet he is still setting out apple-trees. A few months ago he was clearing a bit of land of stumps and stones. When some one spoke to him about it, questioning whether he would ever see the fruit of his trees or eat of the grain which would grow where he had plowed the land, he said:

"That does not make any difference! Some one will. If I can leave the world a little better than I found it that is all I care for!"

Coming down close to Other Side, a little boy called for his father.

"Never mind, papa," the dear little man said, "When I get over there, I'm going to tell Him that you did your very best to make me happy!"

If we could only have somebody say that of us! Would it not be worth a thousand times more than the richest treasures of this world!

We Can Do It Now!

How? Just by living at our best every day. This does not mean that we shall stop planning for the days on ahead. We must do that. It does not mean that we shall give up dreaming that to-morrow will be a better day than to-day. It does not mean that we shall never strive hard to make the future grander than is the present. It just means that as time goes on we shall feel its thrill and be inspired by it to do the little things which make life worth living. Say the kind words now. Do the helpful deed to-day. Be the true man hour by hour and live to-day as you would like to live to-morrow.

Catch the golden glow of the passing day. It is brighter than any which ever will come to you again.

Edgar L. Vincent.

Religious News Items

The total gifts in the various foreign fields for missionary purposes were $4,844,000 last year, this being an increase of $1,360,000 over the previous year. This total is forty-eight per cent of the amount contributed for foreign-missionary purposes by the Protestant churches of North America.

During the eight months from April to November of last year 1,826 cases packed with Scriptures weighing one hundred and seventy-eight tons were sent out from the London headquarters of the Bible Society for shipment abroad. These books included versions in about one hundred and thirty different languages. It is stated that these shipments represent only a fraction of the society's output, as fully two thirds of its editions are printed in the foreign countries where they are circulated.

The work of the Presbyterian Board of Foreign Missions in India comprises the three missions of north India, begun in 1836, Punjab in 1849 and western India in 1853. The north India mission has work at ten principal stations, with twenty-nine out-stations, with a church membership of 1,360 and employs forty-six missionaries. The Punjab mission has fourteen stations, sixty-nine out-stations, 4,242 members and sixty-five missionaries. Western India has seven stations, seventeen out-stations, 919 members and forty-three missionaries.

Sibley Hospital, a very well-known institution in Washington, D. C., is owned and conducted by the Woman's Home Missionary Society of the Methodist Episcopal Church. During the past year 1,514 emergency cases were attended to in addition to the 1,053 patients. A free dispensary service is maintained, and for several years the annual free service rendered has been fully equal to $50,000. Much of this time a deaconess nurse has given her time to nursing in homes of the poor and unfortunate. This hospital maintains eighty-five beds, also a free ward, and during the past year the daily average of patients cared for has been fifty.

Talk Happiness

Talk happiness; the world is sad enough
Without your woes. No path is wholly rough.
Look for the places that are smooth and clear,
And speak of those to rest the weary ear
Of earth, so hurt by one continuous strain.
Of human discontent and pain.

Talk health; the dreary, never-changing tale
Of mortal maladies is worn and stale.
You cannot charm, or interest, or please
By harping on that minor chord, disease.
Say you are well, or all is well with you,
And God shall hear your words and make them true.

—Success.

Helpful Thoughts

The real man is one who always finds excuses for others, but never excuses himself.

As flowers never put on their best clothes for Sunday, but wear their spotless raiment and exhale their odor every day, so let your Christian life, free from stain, ever give forth the fragrance of the love of God.—Henry Ward Beecher.

Look out for the beginnings of sin. The thin edge of the wedge always comes first, and, like the camel's nose, seems insignificant, but it is not insignificant. Now is our time to resist. A little later and we have lost our chance. Resist beginnings.

There is no better way to show our trust than to busy ourselves with the things He asks us to do. Trusting Him to take care of His share leaves us "at leisure from ourselves" to do our share of the "Father's business."—Maltbie Davenport Babcock.

Little self-denials, little honesties, little passing words of sympathy, little nameless acts of kindness, little silent victories over favorite temptations—these are the silent threads of gold which, when woven together, gleam out so brightly in the pattern of life that God approves.—Dean Farrar

Try to Be Sympathetic

My dear friends, never let the seeming worthlessness of sympathy make you keep back that sympathy of which, when men are suffering around you, your heart is full. Go and give it without asking yourself whether it is worth the while to give it. It is too sacred a thing for you to tell what it is worth. God, from whom it comes, sends it through you to His needy child. Do not ever let any low skepticism make you distrust it, but speak out what God has put it in your heart to speak to any sufferer. The sympathy of God for man has just this same difficulty about it, if we try to analyze it. We cannot say that He has done anything for us. We cannot tell even of any thought that He has put into our minds. Merely He has been near us. He has known that we were in trouble, and He has been sorry for us.

Phillips Brooks.

Now the Only Time

God does not help His children now and then, but now, always now. There is no "then;" it exists only in imagination. The only time we ever actually need God is now. If "then" troubles us in imagination, and we wonder what will become of us then, let us learn to live with God now. Form the habit of using God and being used of God, and the imaginary and dreadful "then" will be swallowed up in the stream of now when the time comes. No clocks keep time to-morrow. Springs push and hands point now. Now is the appointed time for clocks as well as people. God never helped any one to-morrow. He is a very present help. What is eternity but God's now? Let us then live the eternal life with God now.—Maltbie Davenport Babcock.

The Two Lessons

EUGENE C. DOLSON

Two lessons must he keep in memory,
Who from achievement would not be debarred:
First, to fulfill his mission manfully;
Next, to await with patience the reward.

It is not by change of circumstances, but by fitting our spirits to the circumstances in which God has placed us that we can be reconciled to life and duty.

F. W. Robertson.

If wrinkles must be written upon our brows, let them not be written upon the hearts. The spirit should not grow old.

James A. Garfield.

A FRIEND'S TIP

70-Year-Old Man Not Too Old to Accept a Food Pointer.

"For the last 20 years," writes a Maine man, "I've been troubled with Dyspepsia and liver complaint, and have tried about every known remedy without much in the way of results until I took up the food question.

"A friend recommended Grape-Nuts food, after I had taken all sorts of medicines with only occasional, temporary relief.

"This was about nine months ago, and I began the Grape-Nuts for breakfast with cream and a little sugar. Since then I have had the food for at least one meal a day, usually for breakfast.

"Words fail to express the benefit I received from the use of Grape-Nuts. My stomach is almost entirely free from pain and my liver complaint is about cured, I have gained flesh, sleep well, can eat nearly any kind of food except greasy, starchy things and am strong and healthy at the age of 70 years.

"If I can be the means of helping any poor mortal who has been troubled with dyspepsia as I have been, I am willing to answer any letter enclosing stamp." Read the little book, "The Road to Wellville," in pkgs. "There's a Reason."

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

Reg. U. S. Pat. Off.

Window-glass lamp-chimneys are cheap, as paper-soled shoes are cheap—cheap to buy, but dear to use.

Macbeth on a lamp-chimney means it is made of tough glass, clear as crystal and that it won't break from heat.

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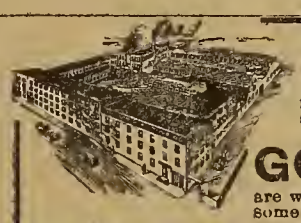

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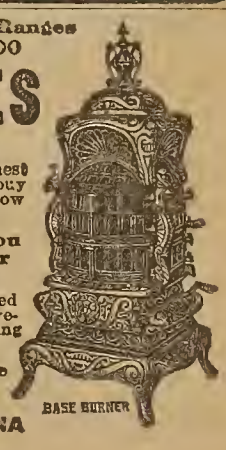
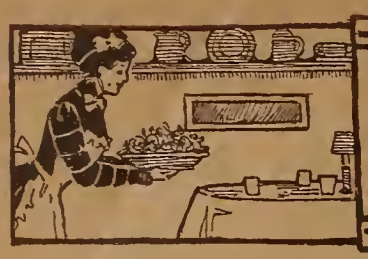

BASE BURNER



The Household Department

Rusk

One cupful of hot water, one cupful of cold milk, one half cupful of lard and butter mixed, one egg, one cupful of sugar, one half cupful of yeast, flavor with nutmeg. Add flour enough to these ingredients to make a stiff, smooth batter, lighten overnight; in the morning add only enough flour to form into rolls (rather high and slender and placed very near each other) and lighten again. Just before baking rub the tops with sugar and water mixed, then sprinkle over with dry sugar. Bake the same as rolls.

Beaten Biscuit

Rub one fourth of a pound of lard into one and one half pounds of flour, adding a pinch of salt. Mix enough water with it to make a stiff dough, about one half pint. Beat the dough well for about twenty minutes, or until it blisters. Form into little biscuit, prick on top several times with a fork and bake twenty minutes in a hot oven.

Canned Grapes

Here is an excellent way for canning grapes for table use in the winter. Pick the grapes from the vines, leaving them on the bunch. Remove all green ones. Then pack tight in glass jars. In a granite stew-kettle put enough water for a half-gallon jar with a small teacupful of sugar. Set on the fire and let come to a boil. Pour this on the grapes, letting it stand a while. When cold reheat it and pour the syrup on again. Seal tight and in winter the grapes will be fine and the juice makes a delicious drink.

Cinnamon Buns

One quart of milk, lard the size of a walnut, heat sufficiently to melt the lard, add one cupful of yeast and enough flour to make a sponge. When light, add flour for a soft dough and lighten again. Roll out in a thin sheet, spread with butter, then sugar and cinnamon, then currants, pat them down and roll up. Cut buns across the roll, set on end, raise again and bake. When done moisten with milk and sugar.

To Tighten Machine-Belt

When you are in a hurry, and the machine-belt comes loose, do not stop to remove it in order to tighten it. Simply put a drop of machine-oil on it; turn the wheel a few seconds, and proceed with a tightened belt.

Tested Cake Recipes

A delicious old-fashioned cake recipe that has been handed down from a New England grandmother is as follows:

Cream one and three fourths cupfuls of sugar with one half cupful of butter, add two well-beaten eggs, one cupful of buttermilk into which a scant teaspoonful of soda and a teaspoonful of cream of tartar have been dissolved, and two and one half cupfuls of sifted flour.

Bake in two layers and put together and ice with the following: One cupful of granulated sugar and five tablespoonfuls of water boiled until it will spin a thread. Take from the fire, add a few drops of vanilla, beat for a moment and pour slowly upon the beaten white of an egg. Beat again, and add one half of a cupful of chopped raisins; when the mixture is creamy, spread upon the cake.

Fruit Gems—Cream one cupful of brown sugar and one half of a cupful of butter, add one well-beaten egg, one cupful of sour milk into which one teaspoonful of soda has been dissolved, two teaspoonfuls of cocoa, two cupfuls of sifted flour, one cupful of chopped raisins, one teaspoonful of cinnamon, one half teaspoonful of allspice. This makes twenty-two gems.

Rolled-Oat Cocoanut Cookies are very delicious and are made thus: Cream two cupfuls of brown sugar and two eggs, add one cupful of butter or if you have very fresh lard, one half cupful each of lard and butter. Add two cupfuls of flour into which one teaspoonful of soda has been sifted, four cupfuls of rolled oats and one half pound of shredded cocoanut.

The addition of rolled oats and cocoanut makes rather a bran-like mixture which should be molded with the hands instead of being rolled out with a rolling-pin.

Home-Made Mustard

One cupful of flour, two tablespoonfuls of mustard, three tablespoonfuls of sugar, one fourth of a teaspoonful of cloves, one fourth of a teaspoonful of allspice, and vinegar to mix smoothly. Put one half of a cupful of vinegar in a pan and let it come to a boil; then put in the mixture, stirring all the time, and let boil until it commences to thicken. Pour into glasses, as it is very thick when cold.

About Shoe-Strings

When the points come off the children's shoe-strings, try dipping the end of the string into the mucilage or paste bottle, then rub the string between the thumb and forefinger until it is dry, and you will have a point which excels the original in that it will last as long as the string.

To Mend Boilers

Mix glycerin and litharge to the consistency of very thick cream, and apply to the dent in the article to be mended. Set away for two or three days until the cement has hardened. This cement will resist the action of hot or cold water and heat from the stove.

Use for Egg-Shells

When using eggs, save the shells, for they are excellent for cleaning bottles. Crush them, and put into the bottle with clear, cold water, shake thoroughly, remove, and rinse with cold water. One can clean successfully in this way medicine and milk bottles; also cut-glass water-bottles.

Baked Beans

One quart of navy or New England beans picked over very carefully, rejecting every imperfect bean, wash, and soak in cold water overnight. In the morning put on the fire to boil with one fourth of a pound of salt pork. Boil a short time, not allowing the skins to break, turn them into a bean-pot, the pork in the center just appearing above the beans, salt to taste, add two tablespoonfuls of molasses. Bake all day in a steady oven, adding hot water as needed. Even the top beans should be moist and perfectly whole. Serve at the evening meal with hot Boston brown bread.

Quince-Honey

One large quince or three small ones. Do not pare, but grate them. Add one quart of water and three pounds of white sugar to the quince and let boil one half hour.

Carameled Carrots

Cut two large carrots into thin pieces about an inch long, put them into a sauce-pan, sprinkle with sugar and put a tablespoonful of butter over them. Pour on enough boiling water to cover them and let simmer until all but one tablespoonful of this has boiled away. Then sift a little flour and stir it through them until all the water is absorbed. When cooked in this way the humble carrot makes a delicious dish to serve with roast lamb.

To Keep Baby's Milk Warm

A method of keeping baby's milk warm at night until needed was evolved with the aid of a leaky hot-water bottle. The neck and upper portion down to the body of the bottle was cut away, and the remainder slipped over a sound water-bottle a size smaller, thus forming a pocket compartment between the two sections of rubber. When the sound bottle was filled with hot water the milk-bottle was slipped into this pocket, where the rubber held it quite firmly. The milk will retain its warmth as long as the water can be kept from chilling.

To Prevent Soggy Pie-Crust

If your pie-crust is heavy or soggy on the bottom, try taking the pie from the pan and resting it on an elevated screen so the air can get at all sides. The pie cools so quickly that there is little danger of the crust becoming steamed. Never put a pie away until it is perfectly cold, and never place it in a refrigerator or its flakiness will disappear

With Sweet Potatoes

Sweet-Potato Pone—Grate two large potatoes, beat three eggs until very light, add a cupful of sugar or syrup, a teaspoonful of baking-powder, the same of mixed spices, a pinch of salt, and beat in the grated sweet potato until as thick as a cake batter. Pour into a buttered pan, and bake like cake.

Baked Sweet Potatoes—Boil the potatoes until nearly done, then peel and slice them. Put into a buttered baking-dish, mixing with them a little granulated sugar, and some small lumps of butter. Add a few spoonfuls of water, and bake until brown. A little cinnamon may be sprinkled over the top if liked.

Escalloped Sweet Potatoes—Slice raw sweet potatoes very thin. Butter a pudding dish and put in it a layer of potato, sift over a teaspoonful of flour, dot with bits of butter, and add a sprinkling of salt and pepper. Repeat until the dish is full, add milk to moisten the whole thoroughly, and bake for forty minutes. Boiled sweet potatoes may be used instead of raw if desired, but take less time to bake.

Sweet-Potato Muffins—Two thirds of a cupful of mashed sweet potato, two well-beaten eggs, three tablespoonfuls of sugar; mix well, and add one cupful of sweet milk, one teaspoonful of salt, two cupfuls of flour sifted with three heaping teaspoonfuls of baking-powder, and one tablespoonful of soft butter. Beat thoroughly, and bake in buttered tins about twenty minutes in a moderate oven.

Sweet-Potato Waffles—Two tablespoonfuls of mashed sweet potato, one tablespoonful of butter stirred in while the potato is hot, one tablespoonful of sugar, one well-beaten egg, one pint of sweet milk, six tablespoonfuls of sifted flour. Mix thoroughly, and bake in waffle-irons.

Kitchen Hints

When a baking-dish gets badly burned, put a little water and ashes in it; this is much better than trying to scrape it, as the burned portion will come off without injuring the dish.

Bran is better than soap to wash painted woodwork. Boil a pound of bran in a gallon of water for an hour and use this to wash the woodwork. This will make it as clean as if soap were used and keep it much brighter and more glossy.

A Transformed Dining-Room

I want to tell the readers of Farm and Fireside about my "new" dining-room. When I cleaned house in September I was discouraged when I came to renovate the dining-room—there was really nothing worth renovating. To me, the dining-room which is the living-room, ought to be the most cheerful and comfortable room in the whole house. So I made up my mind to spend a little money on it and fix it up to my liking.

The old paper was replaced with pretty, rich-red paper; the chairs and woodwork were given a coat or two of varnish; the square table was sold and a round one was purchased for the small sum of eleven dollars. The carpet was too good to throw away, so we cleaned it and put it down again. However, I intend to buy a rug when this is worn out. The gay-colored pictures, which the children admired when they were younger, were taken down and little black and white prints with black frames and others that were passe-partouted were hung up in their places. My girls clipped attractive pictures from magazines and passe-partouted them during their spare moments, so they really didn't cost much. My husband made a little rack for books and magazines, and this is fastened to the wall near the big arm-chair, so that the books are within reach when wanted. Then I had a large glass made to go over the mantel—this cost five dollars, and it looks very effective against the snow-white lambrequin and little china clock. Really, you have no idea how pretty and cozy the room looks. I love the little, round polished table with its green fern, and the pictures are such an improvement. Then there are my window-boxes, which I would never be without. My dining-room is as sweet and cozy looking as it can be, and all it cost to make the change was about eighteen dollars. Mrs. J. Reynolds.

Apple-Pudding

One dozen apples peeled and sliced, two cupfuls of pulverized sugar, one teaspoonful of cinnamon, put in agate pan, use no water. For the paste, one pound of flour, one heaping dessertspoonful of yeast-powder, one cupful of butter rubbed in the flour, add three eggs well beaten; if not sufficient to mix the flour, add a little cold water. Roll out and place over the apples, cover the pan and steam twenty minutes on the top of the stove, being careful not to let the apples scorch. Serve with sauce.

Roll Jelly-Cake

Three eggs, the yolks beaten with one cupful of sugar, two tablespoonfuls of sweet milk. Beat the whites to a froth, then beat them thoroughly with the yolks and sugar. Mix one heaping teaspoonful of yeast-powder with one cupful of flour, add to the other ingredients, flavor with lemon and bake immediately in a moderately hot oven. While hot remove from pan and lay on cloth wrung out of cold water, spread with jelly and roll quickly, sprinkle with powdered sugar.

Danish Baked Ham

Boil a nine-pound ham for one hour with sprigs of thyme and cloves. Take out the water and remove the skin; with a fork make holes in the ham. Place in a baking-pan in a moderate oven, baste frequently with the following dressing: One half cupful of sugar, one tablespoonful of vinegar, one teaspoonful of mustard, one half teaspoonful of mace, one teacupful of water in which the ham was boiled. Serve cold.

Rice-Croquettes

Boil one half cupful of rice very soft. When cold beat in two eggs, two tablespoonfuls of sugar and one teaspoonful of salt; form into croquettes, dust a little flour over them, roll in egg and cracker-crumbs and fry in hot lard.

Utilizing Cold Beef

Here are two good ways of using cold beef. Two teacupfuls of chopped meat, one cupful of cold mashed potatoes, rice or stewed beans, one cupful of bread-crumbs and a medium-sized onion minced fine. Mix the ingredients with a white sauce made as follows: Put one tablespoonful of butter in a sauce-pan with three tablespoonfuls of flour; add a cupful of milk, cook until thick and smooth, season highly with salt and pepper. Let cool, add to the meat mixture, form into croquettes, dip in egg, then in bread-crumbs and fry in hot fat.

Brown Hash—Dice one cupful of cold boiled or roast beef, chop two boiled potatoes and one raw onion, put a heaping tablespoonful of butter into the frying-pan with three tablespoonfuls of flour and brown. Add the potatoes and let brown, then the meat and onion. Pour in sufficient hot water to make gravy. Boil two or three minutes and season with salt and pepper.

Removing Stains

Grass stains may be removed by rubbing molasses on them, the stains will then come out in the ordinary wash.

Equal parts of turpentine and kerosene will remove paint from window-glass.

To remove stains from table-linen, rub soft soap on the spot, hold over a basin and pour boiling water over it. Repeat until the stain disappears. Be sure the water is boiling hot.

Water in which navy beans have been boiled will clean brass.

If grease is dropped on carpet, dry buckwheat flour repeatedly applied will entirely remove it. The same remedy will answer as well as French chalk for grease-spots on silk or woolen goods.

Suggestion for Table-Cover

For a pretty table-cover, cut the figures from flowered cretonne and buttonhole them on a square of linen to form a border. This is particularly pretty with a room where the furnishings are upholstered in cretonne.

Pretty Borders for Curtains

By Pearl White McCowan

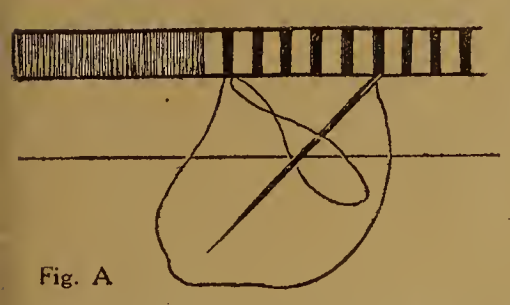


Fig. A

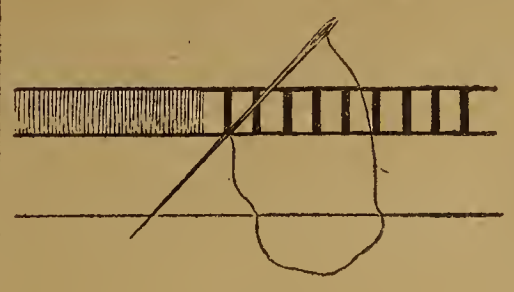


Fig. B

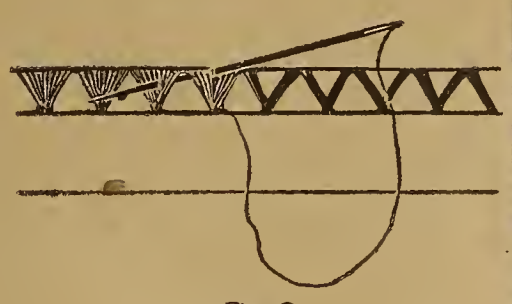
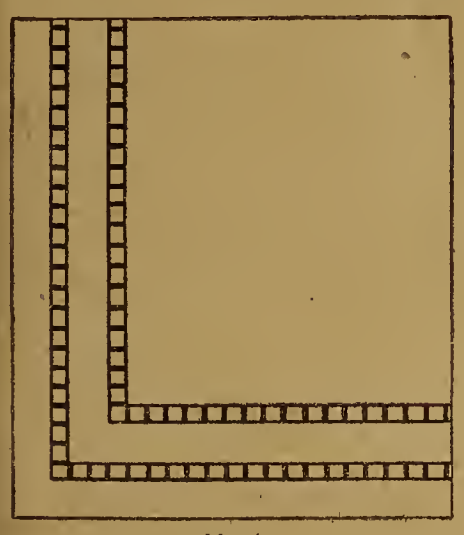


Fig. C

THE very elegance of the furnishings of some of our richest homes is in their simplicity. Perhaps nowhere is this shown more than in the window draperies. Instead of those elaborate creations of lace, straight from the manufacturers' loom, the windows are hung in straight and simple lines, with very plain and often inexpensive material. Many a well-bred woman of wealth points with especial pride to her curtains of scrim or net, made valuable by the amount of hand-work upon them.

Instead of the long curtains of former days, which nearly or quite reached the



No. 1

floor, and had a couple feet or more of extra length at the top, for draping into any fantastical shape which might suggest itself to one's mind, these newer and more sensible curtains are only a trifle longer—if any—than the window casing. At the top there is a two-inch hem, through which a small metal rod is slipped, while the bottom of the curtain is often seen, especially where there is a large wide window, or two or more smaller ones side by side, to just clear the lower casing. This displays the hand-work to passers-by.

One of the chief charms of these curtains to the economical woman is the amount of laundering they will stand without perceptible wear.

Their color varies from pure white, through the different shades of cream to a deep écru or coffee color. Indeed, many, tiring of their white curtains are washing them in very strong coffee. This stiffens them somewhat, as well as dyeing them to that soft, dark shade so much desired and admired.

The work upon them may be much or little, according to one's time or fancy. Three very dainty and easily made ones, which should appeal to the woman with small means and a little time, are illustrated on this page. Space allows us to show only a corner of each curtain, but that is sufficient to show the plan of work upon each.

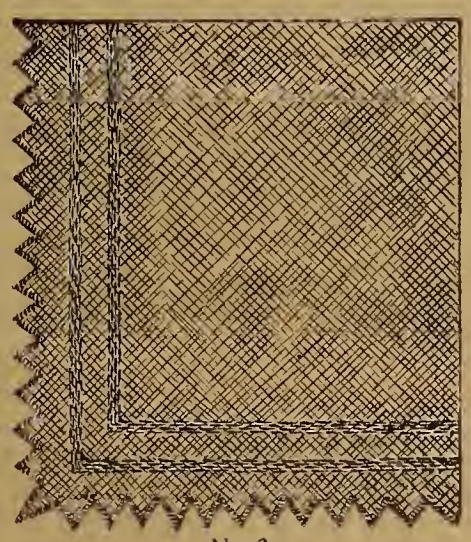
No. 1 is made of perfectly plain scrim which can be purchased for thirty cents a yard. The amount of material is, of course, decided by the size of the window. Beginning four inches from the edges of one side and one end, threads are pulled to the width of three quarters of an inch. The threads in this material are quite wide and stout and pull very easily. They should all be saved to use in working upon the curtain. Proceed now as in ordinary double hemstitching. A second row of double hemstitching is placed two and one half inches inside the other. The unusual width and coarseness of this hemstitching makes it look almost like drawnwork, while its simplicity makes it possible for any woman to make curtains of this style. In this hemstitching, just before drawing each stitch tight, the needle should be passed back through the loop formed by thread, and twisted once, as shown in Fig. A. Draw tight, and take the stitch for holding it firm from just back of the group of threads last caught together, allowing it to extend to front of same group as shown in Fig. B. These stitches will show on the right side but if neatly done will be more of an ornamentation than a disfiguration, while the stitches are held more firmly than with the ordinary shorter stitch. Then, too, this is very desirable in an article which must endure much laundering and constant use. If desired, on one side of each row of hemstitching half of one group of threads and half of the next group may be taken up together, thus making the threads run cornerwise, as shown in Fig. C, instead of straight across as in the illustration.

One of these curtains can easily be made by a rapid worker, in an afternoon. One or more may be used at a window according to its size. Usually only one side and one end are finished in this manner, but this is entirely optional with the worker. Both sides of the curtain may be finished alike if preferred, although of course, the top is always left plain.

No. 2 is another plain and pretty curtain, which is even easier to make than the first, while the style will be preferred by many. Select Battenburg braid in a shade to match your scrim, which should be neatly hemmed by hand in the width desired. A very narrow hem is usually preferred. Make a pointed edging of the braid, by merely lapping back and forth and sewing neatly to the edge of the curtain. Cut two five-inch strips of material, one two inches longer than the side of the curtain, the other a couple of inches longer than the end of the curtain. These are folded and the edges neatly hemmed together, one end of each being cut bias and joined to the other to form a corner. This is then sewed neatly to the outer corners of the braid edging to form an insertion, while a second edge of the braid laid in points like the first is added for a finish. Some prefer only the insertion with the plain hemmed edge of material. These are especially useful patterns when a curtain just a little wider than the width of the material is desired.

No. 3 is made of curtain netting, which varies in price from the so-called fine Brussels net curtain material, at twenty-five or thirty cents a yard, to the really fine and beautiful lace netting, which may be purchased for from seventy-five cents to a dollar and a half a yard, according to the width and fineness of the material.

This is cut in the size desired for windows. Indeed, these are quite permissi-



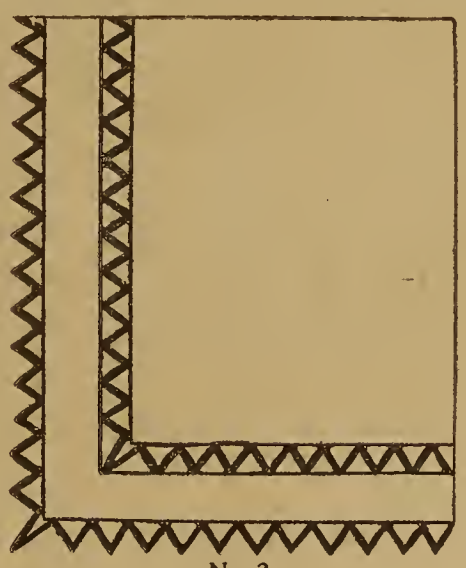
No. 3

ble if made somewhat longer than the window casing, although even in these, the long curtains reaching nearly to the floor are never seen.

The edges are cut in points in any size desired, while between each point the material is cut in for a quarter of an inch to allow for the turning of a hem. This is darned down with sansilk or embroidery floss the same shade as the material. In fact, for a bedroom, a delicate shade of pink or blue for darning would be effective, if it is desired to match the other furnishings.

There are from three to five rows of this darning all along the outer edges of points and entirely covering the hem, and if desired, still other rows of darning may be placed a couple of inches inside of the outer rows. These inner rows should be made of the same number of rows of darning as the first and may be made in points or in straight rows according to taste. Many prefer them entirely plain, except for the outer row of darning which forms the hem. This is perhaps the daintiest curtain of the group. A rapid worker can make one in about two afternoons.

Attractive curtains for a bedroom may be made of fine dotted Swiss. They look most effective finished with a ruffle of the goods edged with insertion and lace. They are generally draped back with curtain loops and reach a little below the window-sill. Stenciled curtains are also much used. In fact, stencil work is growing more popular all the time. The



No. 2

work goes along quickly and is not at all hard to learn. Always use simple material and the stenciling will look more effective and artistic.

Beauty Hints

Do not use alcohol on the face unless the skin is oily.

If the hands are stained, rub them with salt and lemon-juice.

If the finger-nails are too brittle, rub a little vaseline into them each night.

Do not polish the finger-nails too often or they will become thin and tender.

Do not bathe in hard water. Soften it with a little powdered borax, or a handful of oatmeal.

Equal parts of witch-hazel and rose-water make a good lotion for wind-roughened skin.

Almond meal softens and whitens the skin, and for tender skins may be used as a substitute for soap.

For too moist hands, use a little powdered borax in the water for bathing, dusting afterwards with boracic-acid powder.

Creams are seldom suitable for those whose skins have a tendency to oiliness. A cooling and slightly astringent lotion may be applied in such cases.

To soften and whiten the hands use the following lotion: Honey, one ounce; lemon-juice, one ounce; eau de Cologne, one ounce. Apply after bathing.

A simple whitening lotion for the face, neck and hands is made of tincture of camphor, one ounce; tincture of benzoin, one half ounce; cologne water, two ounces.

The easiest way of steaming the face is to cover it with cloths wrung out of hot water. Rub the face first with a little good cold-cream, apply the hot cloths, leaving them on the face for a few moments, then wash in tepid water.

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Allegro non troppo. *mp quasi recit. delicatissimo.*

1. He was a soul - ful Trou - ba - dour, And
2. The sounds of gay and joy - ous mirth Were

p automaticamente. *rit.* *mp dolce.*

f *mp* *f rit.* *a tempo.*

she was a maid - en fair; . . . Each gaze be - trayed the love they bore, Yet stood they si - lent there. While
borne to their list - 'ning ears, . . . The strains of mus - ic sad and sweet Moved all to smiles or tears. Yet

f *mp* *f*

molto espress. *poco rit.* *p* *a tempo.*

snug was the nook that shel - tered them, Cur-tained, screened and dim, Yet not a word he spoke to her, She
while the rev - el rose and fell, Paused and died a - way, The Trou - ba - bour and maid - en fair,—

molto espress. *poco rit.* *p* *a tempo.*

mf *cresc.* *poco e poco.*

not a word to him. 3. His fin - gers touched a sound - less lute, Her's to her heart were pressed, . . She
Voice-less still were they.

molto rit. *a tempo* *cresc.* *f*

mf *con grazia.*

strove to still the throb-bing wild Deep in her gen - tle breast; . . . Yet from her tempt - ing ru - by lips, He

mf

rit. ad lib. *f* *accel. al fine.*

nev - er stole a kiss; . . . He was a mar - ble Trou - ba - dour And she a Dres - den Miss.

poco rit. *accel.* (L.H.) *pp*

King Corn and Its Products

By Richard Maxwell Winans

Do you know that corn is used in over a hundred different ways in this country? To be exact, there are one hundred and ten ways in which corn and the corn-plant are used as food-stuffs and in the industries.

It is an erroneous idea that some of us have when we think of the great corn belt of the West raising the king of grains for the sole purpose of making nice, lean bacon that the Meat Trust charges a fancy price for; or to produce the tender, juicy porter-house steaks that cost you three dollars apiece on Broadway. That is one of the main uses, to be sure, and, probably, the most profitable, if we except whisky; and we would all of us be better off if the exception were made a hard and fast rule.

The statistics show that every year a larger acreage is planted to corn, with the yields increasing in proportion, but the close of every season, so far, has found the supply all but exhausted, showing that the consumption is increasing with the supply.

The production of corn has reached the enormous total of about three billion bushels per year, with a market money value to the producer of one billion five hundred million dollars. When sold to the consumer, however, in the many forms of the finished product, it represents a value many times the sum named.

For instance, while it may be possible to make that particular brand of mountain-dew, commercially known as Bourbon whisky, for about ten cents a gallon, it costs the man who makes the money to buy it, and who had better spend it for something else, about ten dollars a gallon when he pays the man who serves it to him over the bar.

For the United States navy they use corn to make the smokeless powder to hurl projectiles against the enemy and guncotton to make destructive bombs, and they use the pith of the stalk to pack the dead space between the walls of armor-plate to keep the ship from sinking if hit below the water-line. From the stalk they make rope for hawsers and boot and shoe heels for the jackies. The sailors smoke their pipes of cob after they have dined on mush and corn-flakes and hominy, sweetened with syrup from the same grain, eaten from a table covered with oil-cloth made from its fiber, and later spread a fresh coat of paint over deck-house and railings, the material for which grew in a waving field of corn. Later on he can wash out the paint-spots from his clothes with a laundry-soap and remove the paint from his hands with a toilet-soap that originally grew in the same field, and when he prinks up for dress-parade he may lather his face for the razor with a corn-made shaving-soap.

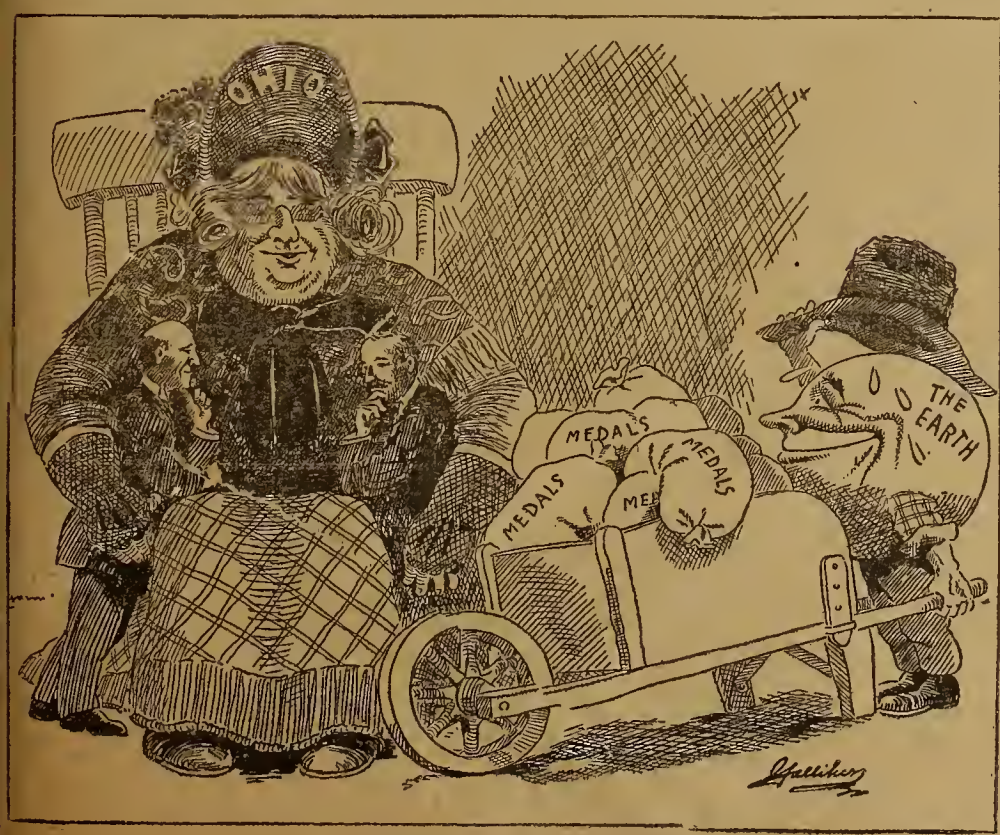
When you ride across the continent in the luxurious Pullman, the wheels that support it, the springs that relieve the jar, the cushions on which you sit, the flooring of the car and the rugs that cover it, the pressed papier-mâchè decorations next the roof and the glue that holds it in place and the varnish that finishes it, the shades that keep the sun from shining in your eyes through the window and the rubber bumpers here and there, may all have had their origin in the green fields of old King Corn. And not only that, but the wheels may have their axles turning in boxes packed with a corn-made axle-grease and the engineer may be using a corn-made cylinder-oil to make the piston-head run smooth, and a lighter lubricating-oil on other bearings that comes from this same kernel of corn.

When you have saved enough money to build that new house you have been planning for so long out among the trees and the meadows of the country, you might go about its construction in a very modern way by raising it from a field of corn; it would then be home-grown, if not home-made.

If the corn-fiber can be made into car-wheels it certainly could be pressed into blocks solid enough for a house foundation. Boards are made from its pulp, and these could be used to cover the frame of the same material, a heavy grade of building-paper from this fiber being used to line the studding inside and out, thus sealing the frame to keep the house cool in summer and warm in winter. Plastering might be omitted by using thin pulp-boards instead, covering with a wall and ceiling cloth of corn-fiber. The woodwork, wainscoting, doors, etc., if given a grain finish, might well be of pulp-boards, and the flooring made of the same; while the floors could be covered with rugs, matting and linoleum, which are now made from the plant. A good roofing material is made from the corn-stalk, so that, aside from the plumbing, grates and other metal fixtures, the whole house might be completed with products from the corn-field, when it could be painted and varnished with corn-made materials.

If you are fortunate enough to have a driving-horse or two and a cow and some pigs and poultry, you can satisfy their appetites with corn-bran, plain corn, shelled and on the cob, corn and cob meal, chop feed, fodder, gluten feed, germ-meal, hulls, corn-meal, stock-molasses, oil-meal and oil-cake, poultry-foods from the granulated blades and tassels, silage, shorts, stover and shredded fodder, and from the waste of the last you may bed them also.

There are, also, a number of other things made from corn and the corn-plant that you may have occasion to use, either directly or indirectly, in your living and your business, such as vinegar from the cobs, shoe-horns, photographic paste, library paste, laundry starch in five grades, a mill starch for running colors in textile mills, confectioner's starch, powdered starch for baking-powder, and edible starch in four grades, seed corn roasted in the ear, potash, packing for dolls, printer's ink, anhydrous sugar for the drug trade and for bottled wine and beer, alcohol, gum for confectioner's specialties, adulteration for para rubber, beer, gum for running colors in textile mills, corn-oil, cloth, coloring, charcoal, dextrines in five grades, denatured alcohol, filling for carriage-cushions, stuffing for horse-collars, cob fuel, heavy fiber from the outer shell of the stalk, flourine for mixing with wheat-flour, glucose crystals for confectioners, mixing glucose for jellies, etc., granulated gum, a substitute for gum arabic, gin, grits for brewer's use, also brewer's grape-sugar, invalid foods, malt and a very clever imitation of amber.



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Farm Notes

Utility of Farm Workshop

On every farm there should be a provision made for labor during the stormy days. Here is where the farm workshop becomes a necessity. Here, also, is where the intelligent farm-laborer shows up to good advantage. It does not require a heavy expense to provide tools necessary in farm repair work. The cost of the shop is a varying quantity. It should, however, be sufficiently ample. It is a nice thing to have a cement floor. Let there also be a stove in it so that it can be kept reasonably warm during severe winter weather. It makes a cheery place for active men to spend a busy day in.

I have in my shop a certain place where I put my broken implements that I can mend myself. There are forks without handles and handles without forks or spades. Broken whiffletrees are in that place, and so goes the list. I call this my hospital, and the work can be done when a stormy day comes.

I carry in my pocket a memoranda-book, and as I go about make notes of things that need to be mended about the place. This is a great help. As I have opportunity I provide the things needful for mending and repairs.

I am careful to keep everything in order in my shop, and can go into it in the dark and put my hand upon any tool that I wish. I have a box with partitions, in which I keep nails, screws and bolts of different sizes, each size being kept in a compartment to itself. Thus, when I desire to use certain-sized nails, bolts or screws I am not obliged to lose time in searching for them. I have a complete outfit of tools and a place for each one, and see that each one is kept in its proper place when not in use. In this way the orderly condition of the shop is maintained.

When one of my hired hands or any other man works in the shop, I have him put every tool in its proper place when through with it and sweep up any litter that he may have made. When things are in their places, and so kept, there is a saving of time. It is so easy to lose time in search for something that cannot be readily found.

My set of tools cost me twenty-three and one half dollars, and I have saved much more than enough money in the last two years in doing my own repairing of farm-implements to pay for them. Before I purchased the tools I was every few days paying a blacksmith for sharpening a plow-point, making a handle for a hoe, or doing other similar work; all of which I now do myself at a time when I can do but little if anything else and save the expense of having a blacksmith do the work. The tools can be bought in sets or singly, as the need is suggested. Wm. H. Underwood.

Waste in Machinery

Did you ever think how much loss there is every year upon many farms from the decay of machinery? Multitudes of farmers throughout the country have no adequate protection for their machinery, or none at all, and hundreds of dollars' worth are exposed to rapid ruin and decay. A business corporation or a manufacturing establishment that should show such carelessness of its property and machinery would very soon reach certain bankruptcy. One great thing needed more than anything else by a large class of farmers is the introduction of good business methods on the farm.

Take for instance the ordinary harvesting-machine. It is a delicate and somewhat intricate piece of mechanism. But it is substantially built, and it ought to do many times over the work of the average harvester. A recent writer declares that the average life of the harvesting-machine is only two or three months. That is, the machine is in use not more than ten days in the year. It is expected to last about six to nine years. That is only sixty to ninety days of actual service. Suppose your wife's sewing-machine were allowed to sit out by the side of the house all the time it is not in use. Or, suppose she should store it for weeks at a time in the chicken-shed and allow the biddies to roost all over it. Should she undertake such a course with a nice sewing-machine that you had paid thirty dollars of hard-earned cash for, you would enter a protest at once. How about that two-hundred-dollar harvesting-machine, which the harvester trust holds your note for, standing out somewhere in a fence-corner, or in a leaky shed serving as night quarters for chanticleer and his harem?

It takes no prophet to foretell what would happen to a manufacturing company that could only get ninety days' service at most from its costly machinery, and have to renew it every three months. What is the matter with the harvester? Is it shoddily constructed? Or, is it too delicate a piece of mechanism to stand the work it must do? No. Any other machine neglected as it is would soon wear out and go to the rubbish-heap.

Many a time the harvester is left standing in the field where it was last used, until the weeds, as if ashamed of the sheer shiftlessness of the owner, grow up and hide it from view with a curtain of green. It is a wonder that a machine so treated endures as long as it does.

What is true of the harvester is likewise true of the other farm-implements. They are left oftentimes unprotected and uncared for from season to season. They are only thought of when needed for use. Swelling and shrinking and rusting from the attack of the elements, like the wicked and bloody man, they do not live out half their days. And soon, to the delight of the implement manufacturers and dealers, others must be purchased to take their places.

For the past two years I have been passing every few days the premises of a man who last year sold twenty-five hundred dollars' worth of corn from his farm, besides other products, and all that time his surrey has been standing in the bald open when not in use. The other day I observed that surrey a smashed-up wreck, and I was not surprised.

No wonder the trusts fatten when the farmers play into their hands so well. What is the use of berating the rich manufacturer, when your high-priced machinery is rotting through your neglect for his gain?

You know the old adage about trying to fill a barrel at the top when it has a bigger bung-hole open at the bottom. The waste on many a farm is the bottom bung-hole of the barrel. Some farmers scold their wives if they find a little too much kitchen-waste in the slop-pails, while at the same time their planters, cultivators, mowers, self-binders, etc., are scattered all over their farms. The pigs and the chickens will have a chance to save at least a part of the kitchen-waste; but the junk-dealer fattens on the machinery wasted. M. G. Rambo.

Irrigating the Dry Lands

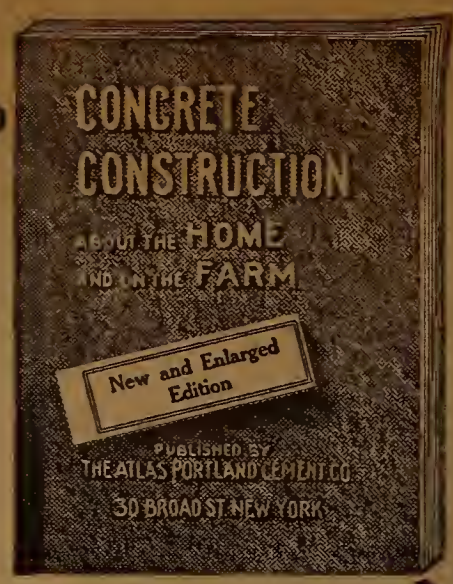
Much interest is manifested in reclaiming the arid plains by a system of irrigation. The project may be feasible, but it will require time and experiments to demonstrate its ultimate benefits. The vast area lying in the highland regions now practically worthless may be made to blossom as the rose and yield rich stores of food-products for man's sustenance or it may result in great failure and cost to the people.

There is a possibility and a probability in the matter. We believe the success of such an enterprise entirely possible, but the probabilities are that it will result in failure of good results to the masses. If the government of the United States will undertake the work and deal directly with the people in a fair distribution of the irrigating powers and at a just and equitable rate based on actual costs and fair expense for maintaining, then the enterprise is possible for being a public benefit.

If government ownership and control of these reservoirs and canals can be exercised and men using the irrigating feeders are supplied at an expense that will allow him and his family to live and let live in developing the productive power of these desert wastes, then the enterprise will become an actuality of immense value to the nation and the world.

We notice that private enterprises of this character are being pushed in Mexico, and they can but result in injury to that country. It is easily seen how railroad corporations combined with land agencies can draw unsuspecting people to invest in the barren wastes under flattering offers for irrigation and it is as easily seen how these same settlers would be fleeced to death by the exactions which would be demanded. Every acre of land irrigated by these syndicate bodies would pay to them a large excess of the profits and the settler would suffer therefrom.

The government should go slow in these great undertakings and make sure that the people's interests are paramount to those of any other body of men engaged therein. J. H. Haynes.



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FARM AND FIRESIDE

Vol. XXXIII. No. 3 Springfield, Ohio, November 10, 1909 PUBLISHED SEMI-MONTHLY

Honest Commission Men—and Others

By G. C. Streeter

The condition of things depicted by Mr. Streeter, who investigated it as the special representative of Farm and Fireside, is a deplorable one. Yet that it exists is indisputable. The honest commission men of the country owe it to themselves to correct this great evil by adopting measures that will protect the shipper to the last penny of the value of his consignments. Fundamentally, the shipment of produce to a man whose business it is to do the marketing for hundreds or thousands of farmers, seems a proper and economical business method. But the middleman must be honest, or the plan fails.

In our next issue Mr. Streeter concludes his discussion with a consideration of possible remedies.—EDITOR.

Early in November, 1908, Mr. H., a grape-grower of Keuka Lake, New York, shipped to a commission merchant in New York City one hundred and twelve one-and-one-half-pound baskets of Concord grapes. Mr. H. had picked these grapes when they were at their best, had carefully stored and held them until Concord grapes were very scarce. Selected bunches of sound fruit were carefully packed in small baskets, and the baskets crated twelve to a crate. They left Keuka Lake in prime condition. Three days later Mr. H. received a report from the commission man, saying that when the grapes arrived most of them were absolutely unsalable, being crushed, moldy and rotten. He reported that he had been obliged to throw most of them away, but had sold a few of the best to a street vender. For these he remitted a net amount of nine dollars and sixty cents, in full settlement of the shipment.

Fortunately Mr. H. had a brother living in New York City, and being dissatisfied and suspicious, he wrote his brother a full account of the transaction. His brother saw a high-class grocer with whom he traded, borrowed a few of his business cards, called on the commission merchant, presented the borrowed card and stated that he wanted to buy some choice grapes for the Thanksgiving trade. He explained that he had high-class trade and wanted the best fruit obtainable. The commission merchant showed him several lots of not very satisfactory grapes. He then informed the brother that if his trade would pay for a strictly high-class article, he had it. As he expressed it, he had "the finest lot of grapes ever grown on Keuka Lake." To prove his statement he produced one of the baskets, bearing Mr. H.'s brand. The price asked for the grapes was eighteen cents per basket, or two dollars and sixteen cents per crate. The supposed grocer bought and paid for four crates of the grapes and left.

The next morning he again called on the commission merchant, accompanied by his lawyer, and demanded an honest settlement. When he left the commission house he had a check for two hundred and thirty-two dollars and thirty-two cents, the difference between the amount the commission merchant had sent the grape-grower and the amount to which he was honestly entitled.

Potatoes Melt En Route

In the fall of 1908 Mr. J. A., a potato-grower of Tyler, Texas, shipped a car-load of very fine potatoes to commission merchants of Cincinnati, Ohio. A few days later he received a letter from the commission firm, advising him that his potatoes had arrived in such bad condition that they could not sell them and requested him to forward funds to pay the freight on the shipment. Although the farmer was very suspicious, he sent the money to pay the freight. Some two weeks later he received a letter from the commission firm, stating that the potato market was strong and potatoes scarce, and that if he had any good potatoes they would be glad to receive a car or two. He at once loaded a car, shipped it and advised them of his action. He then took the train for Cincinnati, leaving instructions that all mail or telegrams should be forwarded to him in Cincinnati.

Four days later he received a letter forwarded from his home, written by the commission firm, advising that the car-load of potatoes arrived in bad order and that they had been compelled to sell them for twenty-five cents a barrel. The same afternoon he called on the commission firm as a buyer of potatoes. They showed him samples of potatoes that the warehouse man said they had just received from Tyler, Texas. These samples were in barrels marked with his own brand. The warehouse man explained that they were the finest potatoes they had, with the exception of one car-load which they had received two weeks before from the same party. The grower arranged to buy ten barrels of these potatoes, went to the office, saw the head of the firm and handed over his check in payment for the potatoes. He then explained to the commission man who he was and why he was there.

The commission man tried to explain that there must be some mistake, and when he could not satisfy the potato-grower he became indignant and angry. The potato-grower explained that he was very busy on his farm and was therefore unable to spend the necessary time in Cincinnati to put the commission man in jail where he belonged, but that he would expect a check for the two car-loads of potatoes at the same price as he had paid for the ten barrels, that he would expect his expenses for his trip to Cincinnati and to be paid ten dollars a day for his time while he was away from home. An hour later he was on his way back to Tyler, Texas, with a certified check for every dollar he demanded.

A Busy Commission Street—Farm Fruits and Vegetables Half-Way Between Producer and Consumer

A Broken Axle Saves Apples

Last fall Mr. J., an apple-grower of Western New York, was solicited by a commission merchant in a near-by city to ship him a car-load of apples. The commission merchant advised him that the price was very high and asked him to rush the loading of the car and ship at once. He immediately loaded a car of choice King apples, secured a bill of lading for the same, and sent it to the commission man with a letter advising him of the shipment of the car. Before the car of apples was pulled off the siding the axle broke and it was left standing on the side track until another car could be brought in and the apples transferred. Twenty-four hours later he received a letter from the commission merchant, saying that the apples had arrived in such bad condition that he could do nothing but sell them at a very low price. As the car of apples was still on the shipper's siding, he wrote the commission merchant that the apples were still in his possession and that he intended to keep them. He wrote some other things regarding the honesty of the commission merchant which would not look well in print.

"Cutting" a Car-Load of Melons

At the beginning of the watermelon season last year a melon-grower of Georgia shipped a car-load of very fine melons to a New York commission house. In due course he received word that the melons had arrived in such bad condition that they had to be thrown away, and with the letter was a bill for the freight on the car. As this was an entire car shipment it was somewhat easy to trace. The shipper, being suspicious, investigated the matter, discovered that the car of melons came through to New York and was immediately reshipped to Troy, New York. He learned that the car-load of melons was received there in good order by a dealer who paid twenty-two cents each for them. With these facts in hand he succeeded in obtaining pay for his car-load of melons.

The Habit of Disappearance

In summer of 1908 a fruit and produce grower in Virginia shipped fifteen crates of grapes by boat to a Washington commission merchant. The next day he received a statement showing that the grapes had been sold for two dollars and fifty cents per crate—a very high price—and a letter asking for further consignments. The following day he made a shipment of peaches and grapes and the next day a third shipment. In both instances he received statements showing that the goods had been sold at prices that were highly satisfactory, but no remittance accompanied the sales statements. He wrote two or three letters, asking for a check, but received no reply. He then went to Washington, called at the consignee's address and found another firm doing business at that stand. The firm had disappeared, leaving no tangible assets, but many disgrunted creditors behind them as they went. The new proprietor, who had been an employee of the former commission merchant, said he was now in business for himself. He explained that he expected to run an honest commission business and solicited the shipment of any produce that the grower might have, assuring him that he would receive a check in settlement as soon as the goods were sold.

The produce-dealer went back home, shipped fifteen barrels of apples to the new commission merchant and is still waiting to be paid for them, as the new commission man had likewise disappeared.

Last year a fruit-grower in Tennessee made a shipment of strawberries to a commission merchant of Springfield, Ohio. He had been shipping strawberries and other products to the Springfield market for many years and as he had dealt with an old established and reliable commission merchant, he had received fairly satisfactory returns. Having received from another man several postal cards quoting higher prices than he was getting, he shipped these strawberries to the new merchant. Not hearing anything from the shipment, he wrote two or three letters, asking payment, but received no reply. He then wrote to FARM AND FIRESIDE, stating the circumstances, and our editor investigated the case. He found that the new commission merchant formerly had been a clerk in the employ of the firm with whom the grower had been dealing. He left their employ, taking with him a list of their customers. He then went into business for himself and circularized the customers of the old firm, quoting prices higher than the market would justify. These prices tempted many growers to ship their goods to him. He sold the products at the best price obtainable, pocketed the receipts and made no returns. As most of the amounts were small, rarely exceeding thirty or forty dollars, and as most of the shippers were busy men living in distant states, he had been doing business for several months in this way without being molested.

A Common Type

This is a common type of commission swindle. Many growers make shipments and never receive returns. In most cases the dishonest commission merchant enjoys immunity from prosecution because the growers cannot afford the time and expense necessary to secure the punishment of the criminal.

These are but a few random examples taken from a hundred that I might produce. They are a few that have come out. There are thousands of others that never come out. Every reader could probably tell of many others equally dishonest transactions in the commission business.

Do not get the impression, however, that all

[CONCLUDED ON PAGE 5]

Economizing Fertility

Methods of Getting the Full Value of Farm Manure—By W. Milton Kelly

One of the most vital points in farming is the care and management of the manure derived from livestock feeding. The manure-pile represents much of the fertility removed in the crops, and cropping without manure rapidly consumes the humus so needed in the soil. Much progress has been made in soil management and the handling of manures in recent years, yet we must progress further before we can get the most out of this valuable by-product.

Many farmers and writers claim that manure is not an evenly-balanced plant-food, but chemistry tells us that it contains for each ten pounds of nitrogen about ten pounds of potash and five pounds of phosphoric acid, and that the average farm crop uses plant-food in nearly the same proportions, so that it would seem a well-balanced fertilizer. It is true that by growing leguminous crops much of the nitrogen required can be obtained from the atmosphere. The power to fix nitrogen is possessed by the clovers, peas and other legumes, and does not extend to wheat, corn, oats, timothy and other grasses. So, when legumes are not grown in the crop rotation, nitrogen as well as the other two elements must be furnished in fertilizer; and manure properly handled is about as complete and evenly balanced a fertilizer as could be used.

From the methods employed by most farmers, it seems that they do not realize how much of the fertility is carried away from the manure-pile when exposed to the rain before it is applied to the soil. The problem of caring for this must be worked out by every man himself; and I am not so narrow as to say that manure cannot be composted and made more quickly available with very little loss of fertilizing value. I believe, however, that better results are obtained by hauling it from the stable direct to the field as fast as it is made.

We farmers are facing conditions that are constantly changing and must adjust ourselves to them as fast as possible. With farm wages as high as at present many farmers will plow less ground and haul manure to the grass-lands. Grass and clover may be safely covered with manure in fall and winter even if the plants are completely covered, and manure so applied will be very completely utilized.

The organic matter in the decomposed manure forms a base for the soil organisms to work upon while they are making the plant-food in the soil fit for the use of the growing plants. The watery extracts in the green manure assist in unlocking much plant-food that otherwise would not be available to the crops. When all of the liquids are saved by the use of plenty of straw and other absorbents, large amounts of manure may be made, and when it is spread on the field these liquids will soak down to the depth of the furrow slice if the ground is to be plowed, and to an equal depth in meadow.

Manure cannot be well applied to a sod after the grass has started in the spring; and to plow under much of coarse manure before planting-time will often bring disaster to the rising of moisture from below by capillary attraction. So I should advise hauling the manure as quickly as it is made, to save all the liquid portions, which will otherwise be lost unless we have every modern convenience for saving them.

The more I study and observe the farm-fertility problem the more firmly I believe that farm manure is about the best fertilizer for any purpose, on either rich or run-down soils, to the extent at least of forming the basis of fertility; although I know from my own experience the economy of growing leguminous crops one year in three or four and supplementing the farm manure with chemical plant-foods to enable the nitrogen-gathering plants to do more efficient work at nitrogen fixation. In this way the farm manure can be made to cover more acres and the surplus of nitrogen furnished by the leguminous crops can be turned to profit.

On many farms where this system of rotation, manure and the use of supplementary chemical fertilizers is being intelligently pursued, the owners can include a cash crop in their rotation and thus double their gross incomes. Under this method the manure is applied to the clover-sod at the rate of about ten large loads to the acre. The corn crop is a rank feeder and can utilize the relatively unavailable fertility found in farm manures, and it makes its principal growth later in the season after the plant-food in the manure and clover-sod have become available. When clover-sod is highly manured the bacteria in the manure after completing their work of releasing the nitrogen in the manure seize upon the clover roots and stubble and hasten their decomposition, thus insuring to the growing corn a supply of nitrogen during the whole season.

Every practical farmer knows that excellent corn can be grown by the use of manure alone and that good timothy can be produced after the corn, but I believe that under present conditions of diversified farming better results can be obtained by growing legumes and using a fertilizer carrying liberal quantities of phosphoric acid and potash. Especially is this true when the hay is fed out on the same farm, for the legumes not only furnish nitrogen while they are being grown, but increase the value of the manure when they are fed to the stock on the farm.

The second year in the rotation usually is devoted to the cash or market crop, and when the corn has been cultivated well during its growing season the soil will be in an ideal physical condition for a crop of potatoes or other market crop. The nitrogen will be readily available, and with a fertilizer carrying liberal quantities of potash and phosphoric acid a maximum crop will be insured. The plant-food not required by the market crop will be saved if the ground is sowed to wheat in the fall, and the grain will not be apt to lodge as it often does on freshly-manured ground. I advise wheat in the rotation because it requires a refined fertility. It is a great conserver of fertility, as it prevents the loss of plant-food from the soil during the winter. Besides this, many farmers are finding fall wheat a more satisfactory crop to seed clover with than spring grains.

Under intelligent farming the nitrogen question is easily solved; but not so with the phosphoric acid and potash. If these elements are once exhausted from the soil there is no way to return them except by manure in large quantities or chemical plant-foods. The whole matter depends upon whether we can afford to waste excessive amounts of nitrogen manure to make up for the lack of potash and phosphoric acid. By following intelligent methods I believe that we can better afford to buy fertilizers to supplement the farm manures.

Cost Value of Manure

Many farmers simply let the manure go to waste by permitting it to pile up beside the barn and burn up the valuable humus material and send the ammonia into the air. They neglect to properly or promptly spread this valuable fertilizing material, or to prevent its washing when heaped before spreading.

The worth of stable manure is in the potash, nitrogen and phosphoric acid it contains. It is said that one ton of good stable manure contains ten pounds of nitrogen worth two dollars, ten pounds of potash worth fifty cents and five pounds of phosphoric acid worth twenty-five cents; total two dollars and seven-five cents worth of plant-food.

An authority on manure declares that the vegetable matter added to the soil with manure is worth just as much to crops as the plant-food. Figuring on that basis a ton of fresh stable manure ought to be worth five dollars and fifty cents. As usually cared for and distributed, it is hardly worth half as much.

Here is a good way of disposing of it, where corn is the regular crop and barn manure the only fertilizer used. The summer's manure is hauled out in the fall on land that is to be plowed at once and turned under to enrich the soil for the corn crop the following summer. The strength of the manure is thoroughly distributed to the soil, and the manure helps to hold the moisture for the crop of corn. The manure that accumulates during the winter is hauled out on the meadows, as a top-dressing, but particularly on those comparatively level, so that the strength of the manure would go into the soil and not into the creek. W. D. Neale.

Good Judgment on the Farm

Use Your Own if Possible, Your Neighbor's if Necessary—By Fred Grundy

Two years ago a young fellow came to me and said: "Fred, I wish you would tell me what is the matter with me. I can't make things go right, somehow. I am in debt and not getting ahead at all. If I had my farm paid for I wouldn't care. I could make a living, I guess. Here I've been whacking away six years and am just where I started. I can't hit it just right in my farming operations. I don't buy right, nor sell right. In fact, I'm no good, I reckon."

After cheering him up a little I told him I would run out to his place and see if I could give him any hints that would help him any. I did go out about a week afterward and we had a long talk about things. One thing I quickly noted was that he had too many chores to attend to, and they were taking up too much of his time because things were not handily placed. For one thing he had to carry three baskets of corn morning and evening to his hog-pen, sixty yards from the crib. Then he carried water to them from the well about the same distance, six bucketfuls three times a day. And many other chores were equally difficult.

I suggested a number of changes, not hard to make, that would enable him to do this feeding and watering in less than a third of the time. He was quick to see the advantage to be gained by the changes I suggested, but he said he could not think of them himself. I made several visits to his place, and we made a great many changes in things—little changes that made a vast difference in the number of chores to be done, and the time and labor expended in doing them.

As his farm is all good, tillable soil I pointed out how he could put in the different crops he grew each in a body by itself on strips running the entire width of the farm, something after the method so much in vogue among the Ontario farmers in Canada. This made plowing, planting and cultivating easier, and the regular rotation much handier, while it also gave the farm a much better appearance. He adopted these ideas at once and made the changes with a good deal of enthusiasm.

In the matter of selling his products he had failed because he could not decide just when to let go. He gave me a bunch of postal cards and asked me to just write "sell" when the market indicated that it was a good time to sell; he was to keep me informed as to what he had on hand. He, like many another farmer, had not made it a point to sell a hog or other animal just when it was ready, but to keep it with the lot until all were ready. I showed him how some pigs would be ready for market a month to six weeks ahead of the rest of the same litter, and that it was a waste of feed to hold them if the price was fairly good. My motto always was to sell as soon as ready for market, whether it was an animal or a fowl. While an animal or fowl is growing it should have all the food it will consume. To stint is to lose. As soon as it reaches the size when growth begins to slack up it will take on fat and "round out," but the increase in weight is much slower than during the growth stage. Such an animal or fowl looks nice and sells well, but the looks have been gained at a loss to the feeder. I have seen a single pig in a herd grow so much faster than the others that one would think it were a month older. The time to sell it is just before rapid growth ceased; after that time the period of largest profit is past.

For two years I have given this young farmer the necessary tips in about all the principal matters of farm management, and recently I asked to be excused from farther attention along that line. But he begged so hard to have me continue the oversight that I have consented, much against my desire. He says he has done so well and been so entirely rid of uncertainty that he would be entirely lost if I withdrew.

There are lots of farmers like him. They are almost afraid to risk their own judgment in regard to the best time to plow, plant, sell their produce, and so on. I have often advised such men to watch a successful neighbor, or two or three of them. The man who is almost certain to grow a good yield of corn is the one to pattern after in all matters relating to that crop. The one who is invariably successful with wheat is the man to watch in growing that crop. The one who always seems to hit the best market with his grain or other products is the one to closely follow in selling.

I was not a little amused once at the action of a neighbor of the farmer I was working for at the time. These two men had had some trouble with each other about stock and as a result had ceased to recognize each other in passing. The man I was working for got a tip that the price of hogs had jumped ten cents that morning. He rounded up his herd, selected those that were ready for market and had them in wagons in a jiffy. As we were loading the hogs I caught sight of the neighbor peeping through the hedge to see what the hubbub was about. As soon as he saw what we were at he called his boys and got his marketable hogs together in his loading yard. As soon as he saw us on the way to town he put on three loads of his hogs and followed. He had so much faith in his neighbor's judgment as to the best time to sell that he did not wait a moment to learn prices when he saw the other man selling. It was a time when prices were fluctuating quite lively, and the day after those two men delivered their hogs the price was off fifteen cents, and both of them were congratulating themselves on their prompt action of the day previous.

Last spring we had bad weather at corn-planting time and many a farmer was in a dilemma about planting. In the neighborhood is a man who rarely fails to hit the best time for it, and three or four farmers were watching him pretty closely. At one time it seemed that the opportunity to plant surely had come, and several rushed the seed in. But the old reliable did not enter his field. Those who were being guided by his actions thought he surely had missed it, and they worried considerably about their not going ahead and paying no farther attention to him. Two days later we had the heaviest and hardest rain of the season. Soon as the soil was dry enough to work, this man was in the field with two disks driving for all he was worth. The others immediately followed suit. As soon as the soil was fitted for the seed it was planted, as the season was well advanced. A few showers fell during the following week, and soon as the surface was workable the man was on the field with his harrows with the teeth turned well back. He secured a fine stand, as did those who were imitating him, and they will have good yields. Those who planted earlier missed out in getting a stand and their crops are very light. During the summer I asked this farmer how he guessed the best time to plant. He said he noticed that the upper clouds were moving from the northwest and that was a good indication that the main part of the wet spell was at an end. He said he felt quite certain that if he could get the points of the plants through the ground he could make a crop, and he decided that the time had come to make the effort. And subsequent events proved he was correct. Many farmers called him lucky.

Some men are naturally observant and they see a great many things others do not. Others are natural traders and they rarely fail to get the top price for their products. It is a good idea for those who cannot read "signs" and who are slow at judging markets to watch these chaps. They exist in almost every locality, and they are generally termed lucky fellows, and they succeed where others fail. When a man is doing well steadily there is a good reason for it. And while it might not be possible for any one to understand his methods of arriving at what almost invariably proves to be a correct conclusion, it is easy to act when he does and get equally good results.

An Organization of Wood-Lot Owners

By Raphael Zon, U. S. Forest Service

Any plan for increasing the welfare of the farmers in this country must necessarily take into account the farmer's wood-lot. On the basis of the unimproved farm-land in this country, which according to the last census amounted to 426,000,000 acres, it is safe to assume that there are from 150,000,000 to 200,000,000 acres of farm wood-lots, the average size of which is about forty acres, held by close to 4,000,000 wood-lot owners. To realize the importance of these farmers' wood-lots it is sufficient to state that in 1899 they produced an amount equal to very nearly two thirds the value of the product of the regular lumber industry as it was delivered at the mills.*

In analyzing the wood-lot situation in this country, one striking feature is worth special consideration, and that is the price which the farmer gets for his timber as it stands—the "stumpage" prices. In the heavily-wooded section of the United States these prices are more or less standardized. Thus in the Adirondacks or northern Maine the stumpage price of spruce or balsam, being known to every one, is uniformly received by every one; or, to put it differently, in the case of large bodies of timber owned chiefly by lumbermen or men in the timber business, the stumpage value is more or less a known quantity.

In the case of small wood-lots, however, it is otherwise. There is a surprising variation in the stumpage prices for such a tree as white pine in the farming section of New York, even when quality and accessibility of the timber are the same. No definite stumpage price exists. Two farmers half a mile apart may sell the same grade of timber to the same man and get widely different rates. It is almost futile to try to determine what is the average stumpage price of white pine in this section, and such an average, if determined, would mean nothing because the timber is generally bought in a lump by the lumberman at his own estimate. Even if the timber were paid for by actual scale after cutting, the owner would be at a loss as to the proper log scale to use. As a consequence the farmer is invariably at the mercy of the man who buys his timber, and the price is determined not by any economic laws of demand and supply, but by the degree of ignorance or of helplessness of the wood-lot owners and the aggressiveness and shrewdness of the timber-buyer.

If it is true, as is generally held by competent students of rural economics, that the producer gets only a small fraction of what the consumer has to pay for the products of the soil as a whole, that is a hundredfold more true of the products of the farmer's wood-lot. A study of the hickory situation in the central hardwood region by the United States Forest Service showed last summer that in spite of an imminent shortage in the supply, generally recognized by all hickory men, the price in the farmers' wood-lots varied from two to twenty-five per cent of the value of the finished product, averaging only ten per cent. In other words, from seventy-five to ninety-eight per cent of the value of the product was added on between the producer and the consumer. The farm prices were much below what would be warranted by the scarcity of the timber and the length of time it takes to produce it.

It is, of course, easier to analyze the facts than to suggest a remedy. One thing, however, seems certain. If the reason for the general drift from the farm to the cities is the low return from farm products, then there seems no question that the chief reason for the general neglect of the wood-lot is the returns for the timber, which makes the care of the wood-lot scarcely worth while. Some of the more farsighted hickory-users, who know that they must depend upon the farmers for their hickory supply, advocate paying higher stumpage prices to farmers to stimulate interest in raising of hickory. Hickory hardly ever occurs in pure stands, but in mixture with other hardwoods and averages scarcely a hundred board feet per acre, and there is no wheel factory rich enough to buy sufficient land to insure a continuous supply of hickory, as some pulp companies can afford to do in the case of spruce land. The hickory-users realize that the future supply of hickory is in the hands of the farmers and they therefore preach the necessity (though they may not always put the idea into practice) of stimulating the farmers' interest in raising hickory by paying adequate prices.

The present unsatisfactory buying prices affect, therefore, not only the individual farmer, but have a national economic significance because they retard the growing of timber, especially certain kinds of timber. The assistance which the Forest Service and the state foresters are giving to the farmer is chiefly along sylvicultural lines—how to thin and plant, etc.—but farmers can scarcely be expected to pay attention to the securing of a bigger output of a product on which they are so certain to get the short end of the deal.

One great step in the solution of our national timber problem will, in my opinion, be taken when it is made possible for the farmer to get fair and adequate returns for the timber in his wood-lot. Of course the low stumpage prices of the farmer's wood-lot reflect the general low average of prices for timber throughout the country; but the prices which the farmer gets are below the average. This is due to his lack of knowledge of market conditions, to his inability to estimate accurately the standing timber which he possesses and to his lack of acquaintance with the intricacies of the log rules. In the case of no other farm product is the farmer at such a disadvantage. He knows the value of his lambs, his wheat, corn, oats, eggs, milk and any other product better than that of his timber. As a result he is almost invariably beaten, (1) on the stumpage price, (2) on the estimate if he sells it in a lump and (3) on the log scale if he sells it by actual measure.

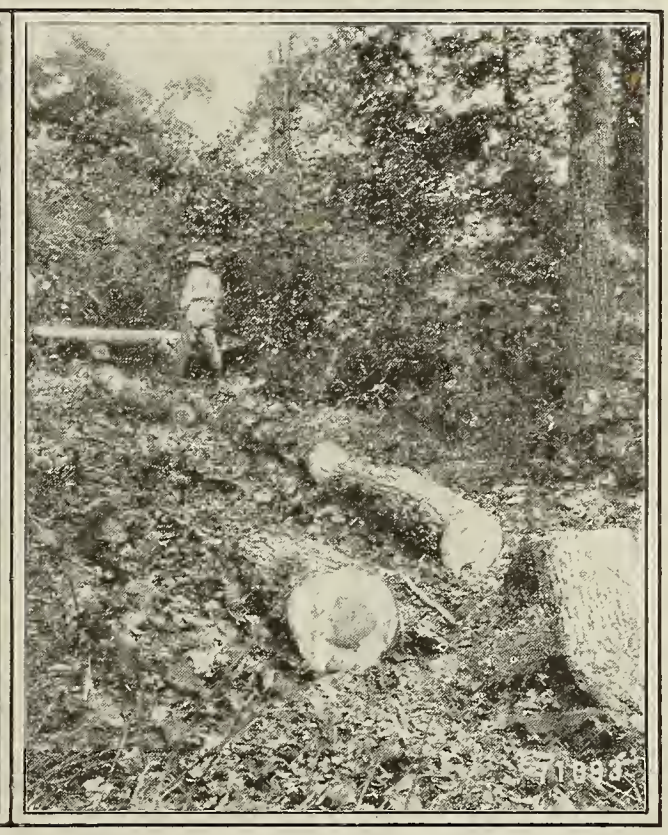
There was a time when the farmers of the Middle West were similarly at the mercy of the transportation companies in selling their grain, but by forming strong coöperative organizations and building elevators of their own, they have now become more independent of the railroads and receive more adequate returns for their product.

In this country, where individual initiative is so strongly developed and where practically every profession and trade and occupation is organized for the defense of its economic interests, the entire absence of any organization among wood-lot owners seems anomalous. Such organizations exist in countries where individual initiative is less pronounced, as in some states of Germany, where the small owners combine and employ the expert advice of a forester in the sale of their timber and are fully informed as to the trend of market prices. A movement which would bring about such an organization of wood-lot owners in this country will be fruitful not only in benefiting the farmers themselves, but will also help the whole country by furthering the conservation of the timber supply.

It is therefore distinctly within the province of the present Executive Committee on the Conservation of Natural Resources to push the formation of such an organization, its prime object to be to secure to the wood-lot owner a more adequate return for his timber. Some definite policy must be outlined as to the method of coöperation to be adopted, and active steps taken to bring about such coöperation. Probably the granges and farmers' institutes offer the best means by which to take the matter up. Their scope might be extended so as to bring about such coöperation as is necessary, or a separate organization might be formed through them. The detail of forming such an organization is not so important at the outset as to get the work started and to see that it is pushed until tangible results are obtained. The movement should be represented either by an organ of its own or sections in the leading agricultural papers devoted to the interest of the wood-lot owners, where the market prices for the different kinds of timber, the best methods both of culture and selling and the thousand and one other topics of wood-lot interest would be discussed. It is not necessary that the organization should include all the 4,000,000 small timber-growers in the country; if only a small nucleus of the more intelligent can be brought together, it cannot fail in improving at once the condition of all the wood-lot owners throughout the country.

The conservation of natural resources in the country cannot be brought about by mere gathering of facts or by propaganda work. To be successful it must be grounded in the economic interests of the people. Appeals to altruism or patriotism alone are not sufficient. The organization of the wood-lot owners provides a means for improving the condition of the farmer, and at the same time for promoting the conservation of the forest.

Stand of White Pine—a Valuable Asset on a Michigan Farm



Cutting Pig-Nut Hickory Into Spoke Bolts, Orange County, Indiana

Home Wood-Lot of Well-Grown Pine, Stafford County, New Hampshire

*The value of the total product of the lumber camps of the United States (including logs, bark for tanning, rived shingles, ship's knees, posts, ties, and all other products of lumber camps) was in 1899, $174,000,000. The value of the products of the wood-lots of the United States (including only "the wood, lumber, ties, etc., which the farmers cut in connection with their ordinary farming operations" and not including such products as maple syrup or sugar), was $110,000,000.

Honest Commission Men—and Others

[CONTINUED FROM PAGE 3]

commission business is conducted on these lines. Do not get the impression that there are no honest commission men. There are many old, reliable, honest commission firms, who look after the interest of their shippers to the best of their ability. But how is the shipper to know? They all put out equally plausible literature, and the dishonest commission merchants, because of their dishonesty, are frequently able to quote better prices.

I have no desire to condemn the commission man unheard, and perhaps the fairest thing to do is to let one of them speak for himself. A year ago a commission merchant who had been doing an extensive business in the vicinity of Tyler, Texas, explained to the chief of one of the bureaus of agriculture that there were two kinds of commission men—the honest commission and the scoundrel. He explained that the honest commission man was one that, when he received a shipment of fruit or produce, figured out how much it would be necessary to return to the grower to enable him to make day's wages on the shipment and then sent him that much money; while the dishonest commission man stole the entire proceeds and drew on the shipper for freight.

Please remember that this it not my estimate of the commission man, it is the description of one of the fraternity, and I believe it is fairly truthful.

Surely the ways and practices of the commission business are devious and beyond understanding. The peculiar part is that everybody with a knowledge of the business knows these evils exist. They know that the commission business is rotten with the dishonesty of many of its representatives and that false representation, fraud and downright robbery are common, every-day practices. The growers have come to accept it as a settled condition and very many of them do not dream of the possibilities for reform.

Winter Swine Management

Methods of Profitable Pork Production During the Cold Months

Raising Fall Pigs

Fall pigs make satisfactory growth if given sufficient care and a suitable ration. They, of course, require more care than those farrowed in the spring, which with freer range of pasture and plenty of succulent food can, to a great extent, take care of themselves.

The first requirement is comfortable housing. Pigs that have sheltered around straw-stacks and in fence-corners, exposed to all kinds of weather, never produce as great a profit for their owner as those for which good quarters have been provided; in fact, they hardly pay for their feed. If a house is provided that can be shut up when the weather is inclement, and opened when it is warm and settled, the litters can be kept growing, even during the most severe weather.

The building should be arranged to open to the south, to admit air and sunlight. A shed made of straw will not answer the purpose. It may be made warm enough, but it cannot be properly ventilated, sunlight cannot be admitted and, above all, it cannot be properly disinfected. The house must have a good floor, for pigs that are compelled to sleep on the ground are sure to contract rheumatism.

The hog-house should be so constructed as to be well ventilated, dry and free from dust and drafts, and the windows so placed that the direct rays of the sun fall upon the floor. There is no greater foe of disease than sunlight and good, pure air. Without these the pigs cannot do their best.

It is essential that the house be cleaned out each week and new bedding laid, then disinfected. The quarters cannot be kept too free from disease germs.

Contrary to common belief, swine have some habits which raise them above other domestic animals from the standpoint of cleanliness. Unless compelled to do so, they will not sleep in their own filth. If part of the floor of the house is kept well bedded with straw, while the rest is not, the excrement will be left on the unbedded portion of the floor, and the bed itself will always be clean.

In order to obtain the best results from the feed, it is necessary that all the pigs should get equal rations. When the pigs are hungry and the feed is such as they like, it is impossible to prevent some from getting more than their share if fed in a plain trough with either a flat or V-shaped bottom.

My feed-troughs are constructed with cross-bars dividing them into sections, so that the largest and greediest pigs are prevented from getting into them, and also from pushing along down the trough, with their mouths in it, and shoving the smaller pigs aside. My troughs are also made in different sizes to suit the size of hogs fed therefrom.

When the pigs are two or three weeks old they will begin to take a little extra feed in addition to the milk they receive from the dam. Care must be exercised to start them in easy, feeding not more than twice a day, as they are likely to eat too much at the beginning. It should be borne in mind that overfeeding as well as underfeeding will make the pigs stunty.

The feed I give my pigs when they first begin to eat is slop made of middlings, to which is added a little blood-meal. The blood-meal is a bone-and-muscle maker and improves the feed. It is needless to say that skim-milk is a most excellent feed for pigs, and sour milk may be fed if blood-meal is given with it; otherwise, however, is apt to cause indigestion. A great variety of feeding stuffs can be used. The main point to be observed is that the stomach of the young pig is easily deranged, and feeds must be given that are easily digested. The trough from which the pigs are fed should be kept as clean as possible, and no stale feed should remain in it from one feed to the next.

Young pigs that are well fed may become too fat. If such is the result, there is likely to be some loss unless abundant exercise is furnished. If any are inclined to lie in bed, get them out doors and see that they get the exercise needed to maintain health and vigor.

When it comes to weaning the pigs they should never know when the change takes place. They should be self-sustaining—independent of the dam before that time. If they have been fed from a trough from the time they were two or three weeks old, they will be eating a pretty good ration by the seventh or eighth week, and that is about the time to take them away from the dam.

The best system of weaning is to remove two or three of the strongest pigs in the litter to a separate pen, and after a few days take away other strong ones, and so on until they are all removed, choosing the strongest ones each time. Thus the weaker pigs of the litter are given a better chance, and the milk flow of the dam is allowed to decrease gradually until it ceases entirely.

The time and work of making the frame of the shoat comes between the weaning and fattening period. It is then that we are giving him his growth, and we want to lay a good foundation to support the profit-making fat which we expect to lay on later.

The pigs should easily make a steady gain of from half a pound to a pound a day, according to the size of the animal, throughout the entire growing period. Corn may be fed with excellent results, but it should be supplemented by all the variety of feed at hand. This variety should consist of mill-feeds, dairy by-products and succulent feeds. If skim-milk, whey and buttermilk are at command, they can be combined to very good advantage with the ration, commencing with a proportion of about two pounds of milk to one of grain at weaning-time, and reducing the quantity of milk until the pigs are finished on grain alone. When fed and cared for as above suggested, there is a first-class profit in raising fall pigs. Wm. H. Underwood.

Wintering Brood-Sows

It is neither difficult or costly to carry sows over winter in the South or in any region where they can readily obtain food out of doors in the late autumn and early spring. They will then go out much of the time of their own accord and gather food, grazing or digging up tubers.

It is in cold areas that the greatest difficulty occurs, where the winters are so cold that for long periods the sows would rather crouch in a corner of the pen covered over with litter than to go out for the much-needed exercise. During those times they should have access to the barn-yard daily. Some coarse grain should be strewed occasionally in part of the litter, and the sows will get the needed exercise in working it over.

Those who have field roots can make them cover more than half the food requirements of the sows. The best roots probably are sugar-beets. Those most suitable when the cost is considered are mangels. The other portion of the food may be grain, of almost any kind that is cheapest—wheat, speltz, rye, barley, oats, buckwheat, millet, corn or mill feeds. These may advantageously be fed ground if there are facilities for it. A diet of good clover and alfalfa will carry the sows through the winter, with the addition of a very small amount of grain. It may be fed without any preparation or chopped fine and mixed with soaked meal. This, like roots, furnishes a wonderfully cheap food.

In the Western mountain states alfalfa or roots may be had as desired to feed the brood-sows, the grain being peas or bald barley. Artichokes may be had also, which the sows may dig up during a large part of the winter season. Under no conditions can brood-sows be wintered more cheaply, provided the food has been grown beforehand that may be grown.

W. H. U.

When Fall Pigs Follow Cattle

Probably the most saving method of maintaining pigs is to supplement their grain supply, putting them to follow cattle. This system, that has proved so valuable in the Western steer-feeding lots, is possible wherever cattle are kept on grain rations.

The first essential in raising fall pigs is to have them get a good start before cold weather sets in. I consider from the latter part of August to the first of October a good time for fall farrowing. As soon as the sow is in condition to stand it, I try to make them grow by a liberal feeding of the mother. Skim-milk or middlings, clover or rye pasture, a little grain and perhaps a few mangels or beets are all good milk-producing foods.

Pigs so treated may be weaned in time to breed the dam for the spring litter. Liberal feeding, plenty of room to exercise and clean, dry quarters are all important factors, so that the growth of the pigs may not be checked at this most critical time. Pigs stunted at this season of the year will never make the growth that they would have made were the conditions favorable.

Pigs can be kept following cattle when the latter are on grain, without feeding the pigs much grain additional. They will require some, but what they get following the cattle, with the addition of a little middlings and skim-milk, will keep them making rapid growth even during the cold winter months. Most grain can be saved when the cattle are on whole corn, less when they are fed corn-meal, or when their ration contains a good deal of roughage.

It is best to let the pigs go through the manure before it is hauled to the field, which should be as soon as possible after it is made.

Pigs cared for in this way will be in condition to make very rapid gains when spring comes. They may be turned onto spring pastures with a little grain, and will be ready for market any time after the first of June, at which season the price of hogs is usually at its best.

R. B. Rushing.

Pig Health in Winter

Cold weather is hard on young pigs, even though the best of care be taken of them. A warm, light pen must be provided, which must be kept clean and well bedded with straw. If the straw becomes dusty it must be replaced with fresh. Dust is very injurious to young pigs, as it causes a crust on the skin. When a small pig gets in that condition give it a good scrubbing with warm water and soap. Warm water in which a little salt is dissolved is also highly recommended as being cleansing and stimulating.

Pigs need exercise, and on nice warm days they must be let out to scamper and play at will.

A wet, mucky pen is more unhealthy than ever in freezing weather. If on the other hand the yard is hard and stony, attention should be paid to the condition of the animals' feet, especially later when they begin to carry much weight. If there is a cement feeding-floor, a little straw should be thrown down to give soft footing, or heavy hogs are likely to get sore and broken-down feet that affect both their looks and condition.

The best feed for winter pigs is a combination of milk, middlings, oats and some corn. They are very fond of the last, but care must be taken not to feed too much of it. Ashes and salt in small quantities must not be forgotten. Corn-cob ashes or charcoal are specially relished. Succulent feed is highly relished and serves to give bulk to the feed and keep the digestive organs in good order.

J. B. Stephens.

Primitive Shelter Under Straw-Stack—Damp, Dark and Undrained. In Winter, Hogs So Housed Use a Third of Their Feed Keeping Up Bodily Warmth

Fitting Show Stuff

There is not much chance in the case of the hog for "dressing up" for show-ring purposes. The animal must depend on his conformation and condition. Considerable can be added to his appearance, however, by carefully keeping his skin in condition.

He should be kept clean, and given an occasional rub with a mixture of equal parts of alcohol and cotton-seed oil, sweet-oil or the like. In the case of black Poland Chinas, Berkshires and the other black breeds, many exhibitors make it a custom to darken the animal by adding lamp-black to the above mixture, and applying two or three days before exhibiting, then cleaning off with the clear solution before the show.

Judicious clipping around the eyes improves the appearance of the face. The hair on the edges of the ears should be clipped, which makes them look finer, especially in the case of the erect-eared breeds. F. N. Corsen.

Do You Cure Your Own Pork?

It is a good time along about now to select out of the herd of porkers a few nice ones for home consumption. Let them be the likeliest and best, for nothing is too good for home use. Don't sell the best and put up with the poorest at home. Let the other fellow take the "leavings."

The curing of pork has almost become a lost art among us farmers—an unfortunate thing it seems to me. Who among the middle-aged does not remember the sweet, home product of the old days; the good, wholesome, juicy hams; the sweet, appetizing bacon, and the clean-smelling, unadulterated lard? I feel as if I would be willing to travel miles to sit down to a plateful of such meat. It makes me hungry to think about it now. But can anybody tell me where to find it?

The packing-house products are not satisfactory to me. Aside from the higher-priced breakfast bacon, there are none of the pork products of commerce that suit me like the old-fashioned home-killed pork.

There would be no difficulty in finding a market in any community for whatever surplus meat or lard the farmers might produce. The great majority of folks would much prefer to purchase the home-made articles if they could be secured. My local meat-dealer tells me that whenever he gets hold of home-cured pork or home-rendered lard it "goes like hot cakes."

The process of curing pork may be easily learned, and it seems to me that here is a chance for the farmers to make a snug saving for their own pockets. M. G. Rambo.

Cold-Weather Squeals

It doesn't half pay to allow that bunch of shoats to linger along and eat up high-priced feed. Push them till they're ready for market.

Who will be to blame if that brood-sow farrows right out in the rough weather some of these bitter-cold nights and fails to save a single pig for you?

If you haven't suitable protection from the storm for those promising young pigs, you'll have no suitable hogs for market later on, when hogs are scarce and the price is sky-high.

If you have a large herd of hogs, sell off all of those "runts" to the neighbor who wants something to absorb his surplus swill. He can care for the little fellows and bring them "out of the kinks" all right, but you'll probably neglect them, and their demise will be a total loss to you.

Note what it costs to feed hogs that have snug sleeping-quarters, then consider that it requires one third more grain to keep them warm and thrifty if they are exposed to the chills of wintry weather, and you'll plan to save that one third of your feeding expenses by providing snug and ample sheds for the swine. M. A. Coverdell.

Around the Farm

The Cost of Rust and Other Points of Farm Mechanics

A Few Facts and Figures

Most people, especially farmers, like to have the facts and figures concerning any subject brought under discussion. During a recent drive of four and a half miles to our county seat, we took notes from which have been gleaned facts and figures that should interest and arouse any intelligent farmer.

At each farm-house we noted, as well as we could without stopping, the exact number and kinds of machinery and vehicles standing out in the open weather. Nothing was included which was in general use at that particular season of the year.

After returning home, the cost of all these articles was added together, the total amount being something over fifteen hundred dollars. Then, at each place where machinery was exposed, the cost of a shed of suitable size was computed, including the labor, and the small sum of seventy dollars would have paid the bill in full.

Now, we allowed a lifetime of five years for the machinery without shedding. The same machinery, if protected by shedding, would last at least seven and one half years, and in some instances ten. Comparing the cost of the sheds with the percentage of gain realized by their protection of the machinery from the weather we found there would be a net saving of over twenty-five per cent.

While these observations were limited, the facts and figures in the case have just as much weight as though on a larger scale, since the same application can be made to thousands of dollars' worth of machinery and vehicles on a single large farm, where the losses would sum up a considerable total every season. In fact, one can say as a general rule that out of every four dollars invested in farm machinery one dollar is wasted by the average farmer. And we believe that to be a lower percentage of loss than is really the case. Shedding undoubtedly is one of the wisest and cheapest investments the farmer can make.

M. A. Coverdell.

Our photographer said to the owner of this place: "You have plenty of room in your barn, why don't you put your machinery in it?" The farmer answered: "Oh, when I do, I have to take everything out if I want anything." Count up the money invested in the wrecks of machinery here shown.

Making Long-Lived Gates

Any one with even a limited knowledge of farm management must be aware of the considerable amount of capital sunk in field gates and the yearly outlay required to make them serve their short lives. Good field gates, like good fences, proclaim the condition of and are always associated with good managements. Owners are alive to this fact, yet the gates seen in a day's journey are little short of disgraceful. As a matter of fact, farmers are not wholly to blame, for gates which are supplied to them are contructed in defiance of all sound principles and do not, and cannot, remain long in good condition.

A gate of the "swinging" variety is formed by a rectangular frame consisting of top and bottom bars, "heel" and "head;" to make it immovable struts or braces and ties are introduced. The "filling up" takes the simple form of horizontal or vertical bars to make the gate a part of the fence. The strut is fastened diagonally so as to form a triangle, and as long as this triangle is held immovable at the angles the length of the strut is immaterial and need not extend from heel to head. To keep the weight as much as possible at the heel, or hinge end, the longitudinal rails are tapered toward the head. The top and bottom rails are mortised into the heel and head posts.

Gates may be made of best old pine, which when painted lasts for years. The most economical gate is that made of planed timber, and painted two coats so as to shed moisture. It is of the utmost importance to use seasoned timber, creosoted if possible. The great secret of preserving timber is to have its natural sap thoroughly expelled.

If an oak post is painted with its natural sap in it, fungus growth will wreck a full-sized post in less than ten years; but if the same post had been cut four years before use, it would very likely have lasted fifty years. By far the best gate material is oak, particularly for the top bar. Ash is good for rails, but fir, poplar and basswood are not worth the cost of labor.

Matured wood, if peeled, will last longer than if squared by the saw. The bark should be left on the trees their full length if cut for posts. Keep them off the ground, protect their ends from the sun and leave them for two years. Then remove the bark and cut in lengths. Clear off the ring of sap-wood, which will be thin, before fixing. Such a post has a long life. Every post should be shaped on the top so as to prevent water lodging.

The size of swing gates varies from eight and one half feet to eleven feet in length and from three feet six inches to four feet and over in height, but for general purposes the nine foot length is sufficient. Care should be taken not to allow moisture to lodge in the lapping joints, causing wet rot. All such joints should be coated with white lead or tar when they are clinched together. The "rose" nail is the best to use for gates.

The "hanging post" to which the gate is hinged should be nine inches on the side of the square, and that part which is to be put into the ground should be left round, and let in three feet deep and fixed upon a sole with a diagonal or stay. The sole and stay should project in the direction of the gateway which will insure its stability against the weight of the gate or any other ordinary pressure in that direction. Tamp the post firm in the hole. The post upon which the gate is to shut is called the "clapping" post, which should be as firmly placed as possible.

W. R. Gilbert.

Nails

I have just been observing the wrecking of a building which was erected twenty-five years ago. I noticed one thing worthy of remark—the condition of the nails. They were the old-fashioned cut nails and were in a good state of preservation, even where they were the most exposed to the conditions of the atmosphere. Even the shingle nails had kept well, much better in fact than larger modern wire nails would have done under similar conditions.

The rapidity with which steel wire nails rust and give way is well known. Many roofs are the weakest just at this point. In the course of a few years the nails rust out, and the shingles begin to be blown off one by one in every high wind, causing the roof to spring leaks and to require repairs, long before a good roof should give way.

A good many years ago I helped tear down an old cabinet shop, built by my grandfather some sixty years before. The nails in the building had been hand forged from wrought iron. They were as good as the day they were driven. Such longevity of service cannot be expected of the nails now in use. In those olden times they didn't have as much as we can boast of now, but what they did have was of a vastly superior character to many of our possessions. Shoddy and sham were not so prevalent then.

The galvanized nail is the best that can be procured now. They should be made of iron, which outlasts steel by a long period. While they will cost more than steel nails, they are far cheaper in the long run.

We are so accustomed to demanding the cheapest that we have trained our retail dealers to handle only the poorest quality of goods. As a consequence it may be impossible to find the better grade of nails in stock in many places. But if one insists on having the best, it is quite likely that his hardware dealer can get them for him.

The galvanized wire nails cost about a third more than the ordinary steel ones. But it is economy to use them on construction meant to last.

For inside work the steel nails may be all right. But for roofing and siding and all exposed work, the galvanized nails should be used by all means.

M. G. Rambo.

Wintering the Machinery

The best storage-place for farm machinery is a special building on the general lines of a buggy-shed, with a one or two slope roof and a well-drained dirt floor. In summer any spare space can be used for truck and other produce that needs temporary storage.

It is policy to overhaul your machinery for lost, broken or ready-to-break parts when you are putting it away and have four months ahead to order duplicates, rather than to make such discoveries just before you need to use it.

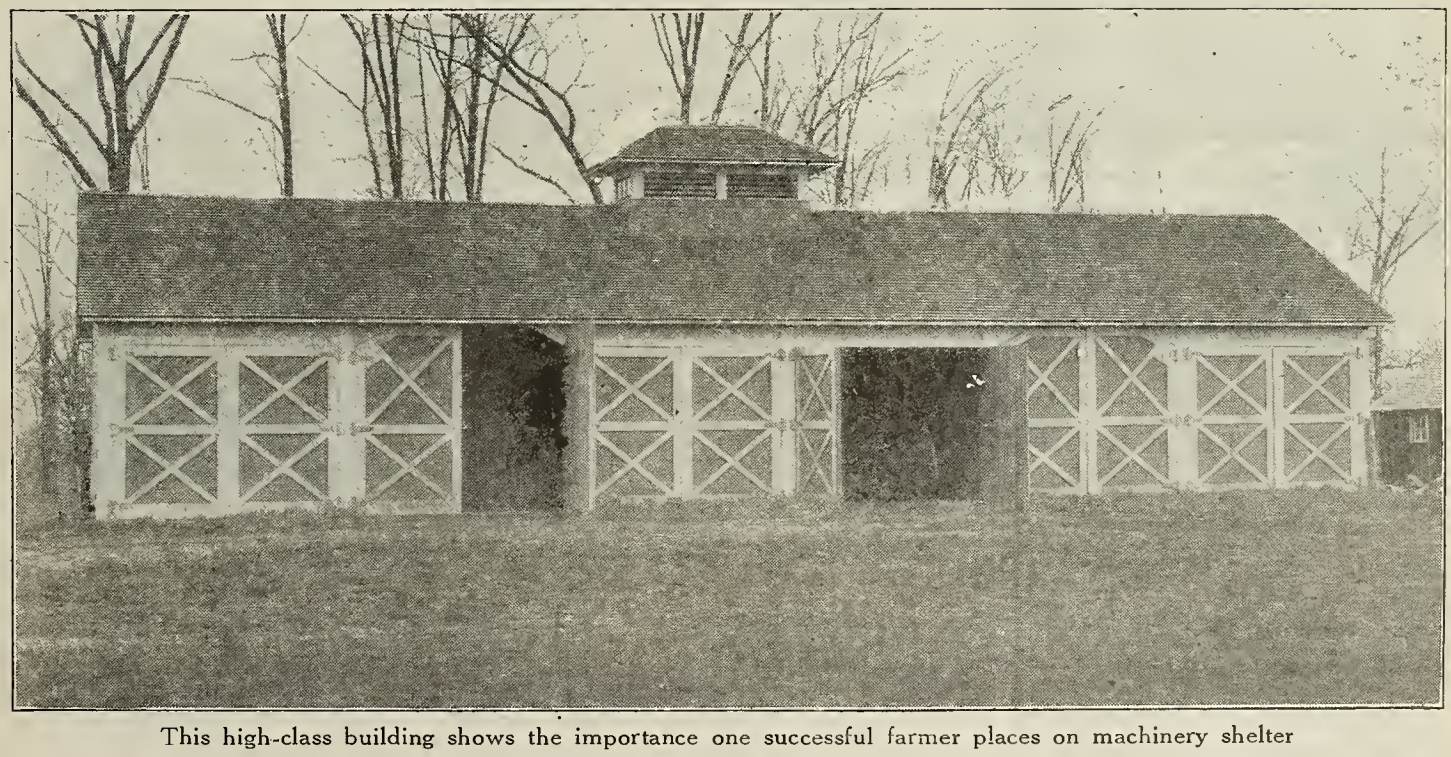
It pays to go over the working parts of mowers, binders and the other more complex machines, and remove the old, gummy oil, even taking out the finest pieces for a cleaning with kerosene. Give the bright work a greasing, even if it is not going to stand out in the direct wet. Linseed-oil is a first-class protector.

A new coat of paint, at least every couple of years, will add to the life of the machine. Use paint, even if it is not the most fancy quality, for the reason the sailor does, to make things look shipshape; and more, for the reason the big steamship concerns use it so lavishly, because it is a first-class preservative. Paint not to conceal defects, but to prevent them.

Farm engines need special attention in cold weather. Don't leave oil or grease in the cups to congeal and harden. Clean the old packing out of the stuffing-boxes, or rusting will be rapid there. Give the boilers of good-sized engines a coat of asphalt paint outside and clean out the scale inside.

When you run your steam or gasolene engine in the winter, above all leave no water in boilers or water-jackets to freeze overnight.

F. N. Corsen.



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Winter Storage of Fall Produce

Best Methods of Keeping Vegetables

SOME have the idea that if fruit and vegetables are put in the cellar before cold weather sets in that is all that is necessary to insure their keeping. It is a great mistake to pile cabbage, apples, potatoes, etc., around indiscriminately and expect best results. All vegetables do not require the same treatment. In fact, the cellar is by no means the best place to keep some sorts, outdoor pits being far better.

It must be remembered that cabbage, parsnips, carrots and turnips should be buried in direct contact with the moist earth, and also that a freeze will not hurt them if they are allowed to thaw while in contact with the earth. It is best to let them stand till the weather is cool and there has been some ice. A slight freeze and thaw will not damage them, but if the ground freezes hard they should be buried at once so as to thaw in the ground. For cabbage I dig a long shallow trench, pull or dig the heads with root and stalk, bury with head down and cover with dirt. The amount of covering is immaterial, yet, if it is desired to have them accessible at all times through the winter, cover the place with corn-stalks or straw, so that the earth will not freeze so hard you cannot get into them. Turnips, carrots, salsify, etc., should be piled in conical heaps and covered the same way. Parsnips and salsify are improved by allowing them to remain in the ground till they have had at least one good freeze before putting away.

Irish potatoes should be dug in the fall and kept in a cool dry place till about the time of the first hard freeze or when there is danger of their being frozen, then buried the same as turnips, except that straw should be placed in the bottom of the pit and the potatoes covered with more straw before the dirt is applied. Potatoes will not thaw out in the ground like turnips or carrots, but must have sufficient covering to prevent freezing. If convenient, dig a trench around the heap and cover with a few old boards to keep out excessive dampness, though this is not absolutely necessary, as potatoes will take ordinary moisture without injury.

Even the late apples should be gathered from the trees when the first ice forms, or sooner if they are falling prematurely, and kept in a rail pen somewhere in the orchard until the ground begins to freeze and there is danger of their being frozen hard, though slightly protected. However, a slight freeze will not injure their keeping qualities, and it is necessary to keep them out of permanent storage until the ground is cold, for a week or two of warm weather as we sometimes have even after frost will cause them to rot if covered deep. Select a well-drained spot, scrape out a shallow depression, put down a little straw, then pile the apples in a conical heap, cover with more straw and short pieces of board, then with earth to prevent freezing. I prefer to put on only enough dirt to keep out frost for the time, adding more as the weather becomes more severe, for I consider it important that apples be kept at as low temperature as possible. If you have a good cellar and prefer to keep them there, apples or potatoes may be kept in barrels or even piled on the floor; but for good, plump fruit, outdor pits give best results.

Celery is best kept in a pit, and if kept in the cellar at all, must have the roots at all times in contact with moist earth. I formerly hilled it up in the row, but found that this required too much work and made it difficult to get at when wanted. I now pull the plants or bunches up by the roots and set them upright in heaps a foot wide and as long as necessary, pulling the dirt up around them, drawing the tops together so that dirt will not get in the crown. Cover sufficiently to prevent freezing, for though a slight frost will not injure it, a solid freeze will ruin it. It should be allowed to remain in the row as long as it can be kept from freezing with slight protection and banking up.

Sweet potatoes require both a warm and dry place to keep well. They should be dug before the vines are frost-bitten and not allowed to chill by getting lower than forty degrees. If kept in a cellar, keep them in slatted crates up from the ground where there is a good circulation of air. The best way to keep large quantities is in a stone or brick frost-proof building with temperature kept up by furnace heat. Where it is desired to keep a few for home use, each tuber should be wrapped in paper and put in a box or barrel of dry sand or road-dust kept in a dry, moderately-warm room. The great objection to the cellar is dampness, though I know of some cellars where the circulation is ample and the air dry.

Where vegetables are buried out of doors, large open sheds to cover the pits and keep off excessive dampness are a great convenience. H. F. GRINSTEAD.

Potato Curiosities

FROM his garden this year the writer selected the curious potato formations here pictured. In the center appears an idol's face, at the bottom the face of a

surprised lion and in the center at the top a very good bust. Others shown are a dog's head, a fish's head and other odd-shaped pieces. C. A. HARTLEY.

Caring for Corn-Fodder

OUT of the large acreage of corn cut and shocked this year, much has been husked and is now in condition to be placed in stack. Some farmers, however, find it a satisfactory method to feed their corn in the bundle rather than husk it. The bundles can be handled in much the same way as corn-fodder.

It is well to so arrange the stacks that they will shelter the feeding-yards on the north and west sides. Placing a layer of straw underneath the long stacks will save much fodder from mold and decay. It is best to build the stacks narrow and high; for low, broad stacks are quite sure, when the snow comes, to become buried in the snow before they are fed out. It is also a good plan to build the stacks of corn or fodder in sections of about three or four loads, rather than one long, continuous rick. When so constructed they can be fed from top to bottom in sections as they are stacked, and in this way time, temper and feed will be saved.

The narrow stack of corn in the bundle is quite sure to cure out nicely, while the wide stack is almost sure to become damaged from heating or mold. The round stack of three or four loads has advantages in feeding, but does not serve the purpose of a shelter for the yards like the continuous long stack.

I have frequently stored corn in the bundle in my barn, but the rats and mice usually destroyed a large amount of the grain and cut the bands on nearly every bundle before it was fed out. Furthermore, it is quite sure to heat when stored in the barn before the advent of freezing weather.

Many farmers are using the shredder this year. Shredded corn-fodder is an excellent substitute for hay, but great care must be exercised in storing it, otherwise the mass will heat and spoil soon after it goes into the barn. Shredded fodder will keep more safely in the barn or stack where it is not trodden down.

It is advisable to be saving with the corn and to feed it in such a way as to avoid all possible waste. See that the corn-crib is rat-proof. It is a simple and easy matter to so tack tin under and around the sides of the crib that rats cannot climb into it.

Make a feeding-floor, the size of which will depend upon the size of the herd, and nail pieces of timber around the edge to keep the hogs from rooting the corn off. Other foods as well as corn can be fed on this floor. The hogs will appreciate such treatment, as they will not be obliged to eat their meals in mud or dust as they did before.

WM. H. UNDERWOOD.

Some New and Effective Storage Schemes

A COLORADO farmer of my acquaintance uses an outdoor bin of woven wire. Four posts ten feet high were set into the ground and well braced, and the wire was stretched about them in the form of a square, twenty feet across. The wire had small meshes and was stretched tightly and secured at each post with several staples. Over the first round of wire another was secured in the same manner. Planks were laid to keep the corn off the ground, and the corn covered with timothy hay weighted down.

I have also seen such bins made of a woven lath or paling fencing. They are roomy, cheap and handy for temporary use, yet I am of the opinion that if the corn is to be kept a long time, it will keep better under a roof in a good crib, where there is no danger of its getting wet or infested with rats.

Ricking the fodder near the feed-lot saves the farmer as well as the fodder from exposure. For ease in handling, such fodder should be tied in bundles either when cutting or after shucking.

Here is a plan one man follows in stacking, which I think advantageous. In his own words: "After setting up a quantity of bundles, butts downward upon the ground, forming a stack bottom some twelve feet in width and twenty or thirty feet in length, according to quantity of fodder on hand, I mount this rick bottom and begin laying bundles in rows upon the top with butts outward, being always mindful to keep the middle filled. About every fourth layer is built with the tops outward, thus causing the middle to build up more rapidly, giving proper bulge to the rick. In settling the bundles take a downward course at the out ends, thus shedding the water well. I lost much fodder in various ways of ricking for winter feeding until I learned and practised this method, which has done away with the trouble."

When these ricks are fed out, begin at the leeward end and remove the bundles straight up and down from the end, leaving no open stack to the storm.

First-Class Cellar Storage

A German neighbor, who is a very successful farmer and fruit-grower, once showed me a cellar that was a model in its arrangements for storing winter vegetables and apples. The place was cemented, top, sides and bottom, with an open chimney for ventilation. At one side and along the middle of the room were two rows of crates running the whole length of the cellar. He had set up six square posts four feet in length for each row of crates and secured them in a perpendicular position by nailing two-by-four strips to them about two feet from the cellar floor. The posts stood in pairs, two at each end and two in the middle. The two-by-fours supported the crates, which were made of laths and were four feet in length, two feet wide and nearly three feet deep.

"You see," he said, "the crates keep the fruit and vegetables from contact with the warmth and dampness of the floor and allow the air to circulate through them keeping the vegetables and fruit from rotting."

"Isn't your plan a little expensive?" I asked.

"I do not consider it so," he replied. "I'll have stuff for market this winter that would have gone to waste in boxes and barrels. I'll save enough this year to more than pay for them."

Ever since I saw that display I have been advocating crates for cellars. Swing them to the ceiling with wires if unable to provide supports for them. I tried this plan one winter, and my apples and potatoes never kept better. By their use, the ordinary cellar is made a safe storage place. If a person will watch, he can pick up cheap material around grocery and hardware stores sufficient for crates enough to last him years with proper care.

When taken from the field, care should be taken to sort out defective and partly decayed potatoes that would damage their companions in the storage cellar.

It is wise to sprinkle air-slacked lime among the potatoes when crating. This is not an expensive material and it will absorb much moisture and the odors that accompany decay, which it will in a large measure check.

The potatoes should not be placed in the cellar until the weather is freezing. It is better to keep them in a shed or in sacks or boxes set about on the back porch in cool places.

W. D. NEALE.

Farm Notes

Owner, Tenant and Soil—All Lose

YOUR article of September 25th on "Some Evils of Farm Renting" is pertinent to the times. The evil is growing and portends disaster. Over one third of the farm lands of Indiana are rented out. This county (Carroll) has far more than a third rented, and so great has been the changing of owners of farms that eight of the leading abstract men have formed an incorporated company with a capital of twenty-five thousand dollars for the writing up of abstracts, deeds and mortgages. An excess of these farms are bought by professional men in our towns and rented.

The owners who left them have removed into near-by villages, and many owners of farms not sold have rented them out, moved to town, borrowed money on mortgages and built town homes. Now why is this so? Chapters could be written giving reasons, but would that be effective in checking the evil?

Under existing conditions, does renting pay the owner, the renter or the farm? To the first we say "no." All he wants with the farm is what he can get out of it by continuous cropping, and that generally in grain, corn or wheat, and as a result the fertility degenerates, the farm no longer yields, it cannot be rented, and must be sold.

Does it pay the renter? Under the terms of lease prevalent in this county we say, unequivocally, "no." One half of all the grain is asked, and that to be delivered at the elevator. All expenses of cropping are borne by the renter. No stock privileges are given and certain stipulated forms of labor are exacted, such as repairing and building fences, opening ditches, caring for stock of the owner of the farm, working out road taxes and boarding any help required to do these things. All these requirements make it utterly impossible for a tenant to make more than a living for his family, and a scant one at that. The limit of lease for such renters ranges from one to three years.

Well, does it pay the farm? The only answer is "no."

The constant drainage of the elements for plant growth without any returns being made in the way of manures or by clovering, the continuous cropping of one grain, the lack of any system of rotation and the indifference of the tenant as to what becomes of the soil, all these cause farms long rented to become infertile and non-paying investments. We base our conclusions from close observation of farm conditions all around us.

A young man a few days ago bought forty acres near here, for which he paid five thousand dollars, or one hundred and twenty-five dollars an acre, paying one thousand dollars down and giving a mortgage for four thousand dollars with six per cent interest. The former owner could not make the farm pay because of the run-down soil from former bad treatment. What will the present owner do? It is not hard to tell.

A millionaire in our town owns several thousand acres of land in the Wabash bottoms. These farms are cropped in corn year after year until tenants refuse to rent them except on payment by the month for work done.

How long will these lands hold out? Too much cannot be said to stem the tide of these unwise methods.

J. H. HAYNES.

A Cooperative Idea

A GOOD example for milk-producers was set recently, when a large number of Illinois farmers combined to establish in Chicago a milk-sales agency through which the business between the producer in the country and the dealer in the city will be handled. This agency will have nothing to do with the business of the bottlers, but with that of the city buyers who import from the country in cans. They will sign all contracts for their milk-supply through this office. A surveillance will be maintained over the market in the interests of the dairymen and farmers. One of the chief objects is to maintain prices; no individual contracts will be made, but the entire business of the Illinois Milk Producers' Protective Association will in time, so it is claimed, be handled through this sales agency.

This plan of coöperative marketing has also been tried out by several county associations, supplying Wisconsin and Illinois cities, with admirable success.

It may be that the agency will be able to look after the cans of the shippers so that fewer losses will result. Few persons not connected with the dairy business know what losses are sustained from the straying of milk-cans and their hard usage by the railroad crews who man milk-trains.

Not long since an Illinois milk-producer made a trip to Los Angeles. In an eating-place he happened to get a close glimpse of a milk-can as it was delivered. On the brass tag was his own name and address. Dealers are accustomed to send milk to dining-cars in Chicago and other large cities and the cans do not always come back. They are carried across the country, and misused for all kinds of purposes. The custom of skidding cans on iron straps nailed to the floor in railroad cars and stations particularly, reduces the life of the can.

J. L. GRAFF.

November Novelties

Try giving the stock more care and less high-priced feed. Which is the cheapest?

How many of us clean out the dairy barn and stables the same in winter as in summer?

Feed is too high-priced for you to feed scrub brood-sows, low-grade milch-cows and drone hens.

Just because the hogs can stand it, is no sign they'll do well if housed in damp or cold quarters this winter.

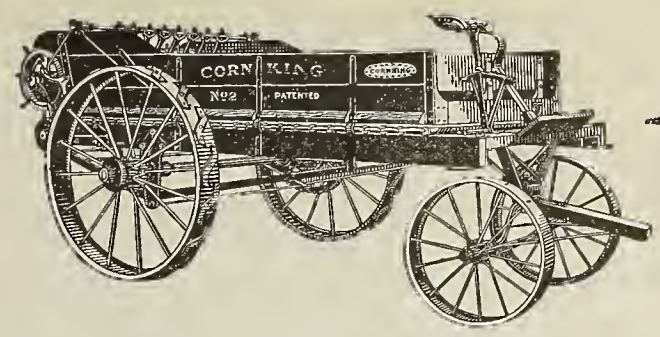
The careless farmer allows the rabbits to peel and ruin his promising young orchard during the winter; the wise farmer saves his fruit-trees by carefully wrapping them with stiff paper before early snow flies.

It will be a wise plan to put up the late poultry, feed it heavily for a few days and rush it off to market. They'll soon eat a pile of grain. Besides, the birds will be harder to fatten when severe weather comes on. Early marketing will mean double profits.

Unless your poultry-house is warmer than the average, it will pay you handsomely to set up a few shocks of fodder around it. Let a wire hold the stalks in place, and if there is any danger of the stock reaching the fodder, run a couple of wires to guard it.

Keep the hens comfortable, give them proper ventilation and feed that reminds them of "The Good Old Summer-Time," and you need have no fear but that your egg-basket will be well filled during the winter months.

M. A. COVERDELL.



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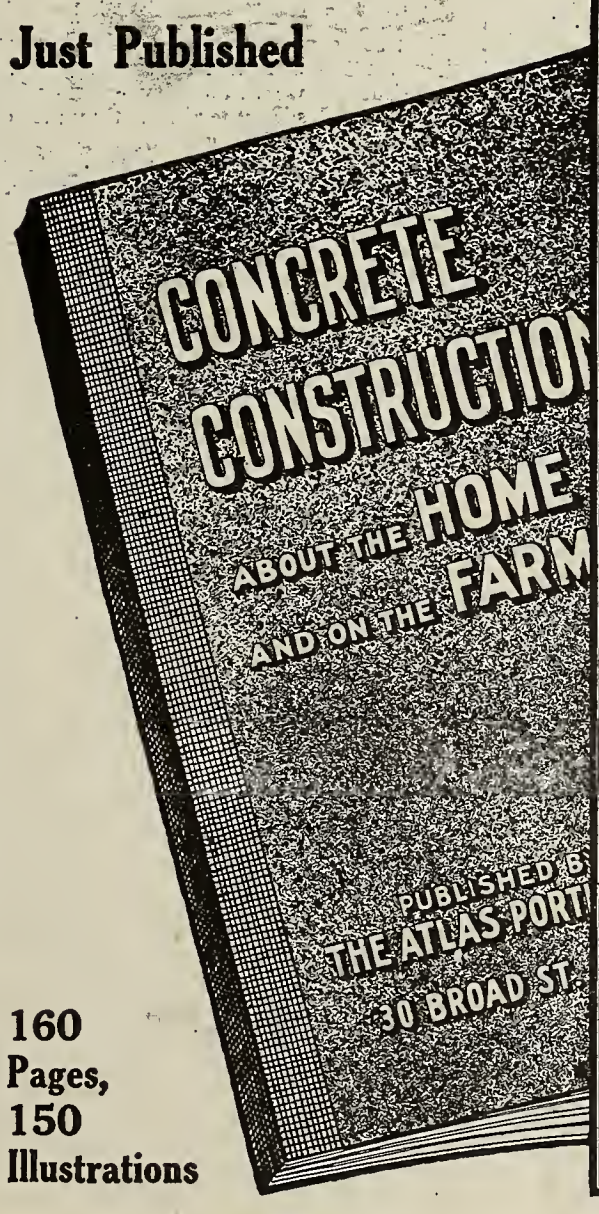

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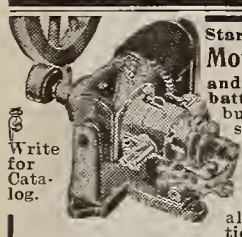

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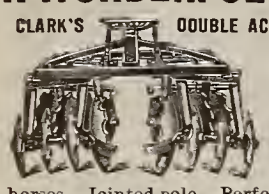

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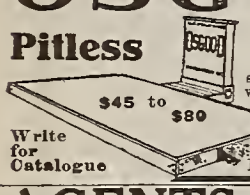

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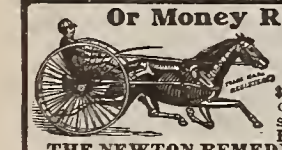

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Gardening---By T. Greiner

Limas Pay

Lima beans here have usually been a paying crop. I grow them on a trellis—posts, wire and twine; if I had plenty of poles I might use them. But you can grow limas without support by selecting the bush sorts. A neighbor of mine has quite a patch from which he gathered a quantity regularly twice a week, and shelled, when going to market; he could not bring enough to satisfy the demand of grocers who paid him fifteen cents a quart. They go "like hot cakes," he says. Grocers have been selling lima beans all season at twenty to twenty-five cents a quart, which seems, and is, a big price. I find that a bushel of pods will give us more than ten quarts of shelled beans, worth at wholesale one dollar and fifty cents. This year the vines were not so thrifty as in an average season, and the pods filled slowly. The whole crop is late, but even now, nearly the middle of October, there are plenty of well-filled pods on the plants, and we will be able to have big limas on our table for weeks to come. Picking the pods is no big job. They are large and a basket fills quickly when the plants are well loaded.

Pruning and Staking Tomatoes

It is often claimed that pruning and staking the vines will hasten the production of ripe tomatoes. The inquirer already mentioned says: "I took some plants of each of my tomato varieties and staked them. Some I pruned a way back while of others I only clipped the tips of the branches. Most of my vines were left to spread on the ground as they pleased, and these plants ripened the best." A friend of mine always stakes his garden tomatoes, trimming them to one or two stalks, and they surely make a fine show. He also gets some early fruit, but he does not get it in the same quantity, especially during the latter part of the season, that I get from my vines that are allowed to sprawl over the ground at their own sweet will. It does not pay me to stake or train my tomato-vines. I have too many of them for that, too. Too much work!

About Tomatoes

A lady reader in the central part of New York State complains to me that her tomatoes are ripening very slowly this year. She has mostly Chalk's Early Jewel, which she says is a very fine tomato, very uniform and smooth, but she got only about one ripe tomato from each plant a week. Last year a patch near her ripened very early, and nearly the whole lot ripened in a short time. Complaints about tomatoes ripening unusually slowly are or were common this year. Mine acted the same way. But when hot weather set in quite late in the fall, say middle of September, the plants made up for the earlier delay, and ripe tomatoes could be seen almost in heaps around the vines. Chalk's Early Jewel is a medium-early sort and uniformly smooth, but not as solid as some others. Earliana and other sorts of that type are somewhat earlier, and now my main reliance. They set fruit early and freely.

Good Melons

I have quite a number of musk-melon varieties on trial this year, among them those most highly recommended by our enterprising seedsmen, both for earliness and quality.

My earliest specimens come again this year from the little Emerald Gem, and the quality is unsurpassed. It seems to be emphatically the melon for localities where the summers are rather short. Paul Rose, of course, is an excellent melon, too, a trifle later, larger, more uniform in size, closely netted and of most excellent quality. It is the variety most largely grown in the melon districts of this (Niagara) county, where the soil consists of sand or sandy loam, and the melons come to maturity quite early.

Sunflower-Lima-Bean Combination

When you have no poles and do not care to put up a trellis, you can plant lima beans around a sunflower-stalk, and in a favorable season you may get a moderate quantity of limas. But don't expect a crop. You will not get it. The sunflower takes the food and the sun, and the results in limas are meager. At least that has been my experience every time I tried this scheme.

Tomatoes for Quality

It seems that we are making rapid strides in the direction of seedless tomatoes. I have several varieties that are almost entirely solid, containing but few seeds. One of these is Burpee's new introduction, the Dwarf Giant. The specimens are large, and the quality excellent. Another of these solid sorts was given me by the editor of an Eastern paper. It is nameless, and apparently of a new type. The mammoth specimens have many very small seed cavities all around a large solid meaty center. The seeds are small, few in number and apparently of weak germination. But the specimens ripen late and crack around the stem so that they soon begin to decay. Careful selection for a few years should give us a valuable tomato. I also find much variation in quality in my various strains of Maule's Earliest, but all seem very good. In fact, never before have we had tomatoes of better quality than this year, and I doubt that we ever had as good. First early tomatoes as we have them now, large, solid and of high quality, would have made a sensation only ten or fifteen short years ago. Any tomato then was good enough if early. Now we have become more critical and more fastidious; but why should we be satisfied with an inferior tomato when we can just as well have a real good one?

Gardening for Poultry and Cattle

We have had our fill for many weeks, feast after feast of good things out of the garden, and there was lots of waste that went to the chicken-yard, the hog-pen, the cow-manger. When we lay in our supply of vegetables for winter we do not forget poultry and cattle. Fowls will need bushels of roots during the long winter, and cattle still more. The mangels have grown wonderfully since we had rain. They are large and fill up, in fact, are the cheapest material for the purpose we can raise. In addition the remnants of the garden-beet patches, overgrown carrots, second-rate cabbage, etc., and even the old kohlrabi, somewhat tough it may be, can be saved for the same purpose. All these materials are stored in the vegetable cellar, and when fowls can no longer find green stuff outdoors, then this supply is drawn on to furnish the bulk. Cows that are fed on fairly fresh and bright cornstalks, with bran and oil-meal, will do very well until when they freshen again, vegetable stuff will be wonderfully relished.

The Egg-Plant Crop

It was somewhat late, this summer, when we got our first specimens of egg-plant, but the warm and dry weather hurt the plants less, otherwise, than it did many other garden vegetables. Repeatedly from two to four of those large eggs were taken off one plant at a single picking, and altogether the yield per plant may exceed a dozen. Single specimens sell for five cents and upward each, and the lowest price received was thirty-five cents a dozen.

If you have a rich and warm spot in your garden and can get some good plants early in June, you have all the facilities needed to grow the crop, and I warrant that they will be a source of pleasure and satisfaction to you, with their thrifty growth of leaves and their load of large, glossy and handsome eggs. They are even good enough for an ornamental plant. Plan to have some next year.

Though sub-tropical in origin it grows easily in this latitude.

Our Sweet Corn

My sweet corn was planted late, grew slowly and began to ripen unusually late. But we never had sweeter corn than this year, although the yield was light. Golden Bantam is still by general consent considered the tenderest and sweetest early. I saw it offered in one fancy grocery-store at twenty-five cents a dozen ears; and the ears are, of course, quite small. We had some good medium-early or intermediate sorts, like Metropolitan, that were very sweet and tender, but just now Stowell's Evergreen planted quite late, is giving us large ears that are deliciously sweet and tender. There are many half-developed ears in the patch, and I am now cutting it with the idea of using the ears for boiling, fritters, etc., in the next few weeks, as fast as we husk and feed the stalks to the cows.

Sunflowers Come Handy

Just at this time I give my hens and young stock an occasional, or rather regular, mess of sunflower-seeds. We can always find a place for a few sunflowers—some odd corner, a vacant spot among other crops, a piece of rough land or land a little bit too wet for corn or potatoes. The sunflower will often do and produce well in such spots. All fowls soon learn to like the seeds. I usually throw the head, seeds downward, on the hard ground with some force so as to loosen or even partially shell the seeds. Or I may break the head into three or four pieces and throw them down. The fowls usually soon finish them, picking out every good seed. The effect of this diet may often be noticed in the glossy plumage, the red comb and the increased egg-yield.

Seed Peas

I have this year used a considerable quantity of Alaska, Champion and Thomas Laxton peas for seed. On two rows of the Laxton I notice that a good share of the pods is still on them. I am now taking these rows up, and shall thresh the vines out with the flail and save the seed for next spring's planting. Usually these peas are quite high-priced, ranging from five dollars to seven dollars a bushel. I don't understand why they should be held at such a price. Canada field-peas usually sell for one dollar to one dollar and fifty cents a bushel. I have bought them even below the lower figure. Alaskas, Laxtons, etc., it seems to me, can be grown just as easily as Canada field-peas and about as cheaply. The demand for these peas, however, is regular and unfailing. Why are they not grown more largely for seed? When we have to pay those high prices, only good crops and good prices of green peas can give us adequate returns for growing them for market. By saving my own seed-peas, however, I am trying to make myself independent of seedsmen's high prices.

More Poison-Ivy Cures

A subscriber, Mr. D. W. Leaws, of Richmond, Virginia, referring to the sweet-oil-and-camphor remedy recommended in our October 10th issue, writes as follows:

"The best remedy for poison ivy is aqua ammonia. It is instantaneous and does away with all swelling and itching. Before I knew of it my hands would swell up like pincushions; now I have no trouble. And the stings of bees, wasps and hornets are relieved in a few minutes by aqua ammonia—four parts water to one strong spirits ammonia."

Mr. E. R. Van Allen, Lockport, New York, writes: "I inclose the leaves and pod of Nature's remedy for poison ivy, a weed that is always found growing within a few rods of the latter. It is called by farmer boys 'Touch-me-not' on account of the pod, which has the curious habit of exploding when touched on the end. If one gets poison ivy on them all they have to do is crush a handful of the leaves of this weed and rub them on the affected part."

The plant in question is common throughout the Northern two thirds of the country, and is variously called "snap-weed," "jewel-weed" or "balsam." The last name indicates the principle contained in its juice that gives it some healing power. It often occurs near poison ivy, but we question whether there is any other connection than similar habits of growth.

Poison ivy gives off an acid poison, so any alkaline substance, like dilute ammonia, lime-water or even soap, serves to counteract it; the ease of cure, like the resistance to attack, varying with different persons.

News-Notes From California

Owing to the excellence of California asparagus, it has taken the place of the German product in the United States trade. All the leading grocers prefer the former.

The sixty acres set to asparagus last year near Wheatland, California, are to be increased to sixty more this year.

In California the wines are classed as "sweet wines" and "dry wines." The grapes for the sweet wines are grown in the rich, narrow valleys, while those for dry wines are grown along the foot-hills of the mountain-ranges.

Fruit-Growing

By Samuel B. Green

Care of Peach-Trees

If your peach-trees are in sod, I think it desirable to break it up as far out as the branches extend, and then if the soil is poor and the trees are not making a good growth of wood, spread perhaps a wheelbarrow-load of good stable manure to each tree, sometime during the last part of the winter. I do not take much stock in the application of salt to peach-trees. Small quantities of potash and phosphoric acid, as found in unleached wood-ashes, make a good fertilizer, far better than salt. If your trees are making a large growth, there is no need of applying fertilizer of any kind, but if they are making a weak growth this should be applied. If they lack in fruitfulness, then do not apply stable manure, as recommended above, but apply wood-ashes as soon as the ground can be worked advantageously in the spring. There is no objection to whitewashing the trunks of trees. I do not think it does much good, but it may possibly aid in keeping out the peach-borers. In order to be effective, it should be applied each spring.

Praying Mantis

A subscriber states that he found about half a dozen of these large, peculiar insects in his peach-orchard, and he thinks they were eating the peaches. This in-

sect is a ridiculous-looking affair, with a big head, very large fore legs, a slender neck and large grayish body, and looks as if it might do considerable damage. As a matter of fact, however, it does not injure our cultivated plants, but continually lies in wait for other and smaller insects, which it soon despatches.

Willow for Fence-Posts

If willow-trees are to be cut for fence-posts, the bark should be removed. It is more work to remove the bark from posts cut in winter than from those cut when the bark peels easily. On the other hand, it is customary to do it in the winter, on account of labor being cheaper. Posts that are barked and well cured will last much longer in the ground than those not so treated, and are also best adapted for treating with creosote to prolong their life, a method now attracting considerable attention.

Althea in Minnesota

The shrub or small tree known as Althea (Hibiscus syriacus) occasionally attains a height of fifteen feet. This plant will occasionally come through Minnesota winters unharmed, but as a rule is generally injured by them, and when planted there seldom lasts more than a few years, even with considerable care. I do not recommend it for the extreme Northern states.

Jack-in-the-Pulpit

A bunch of bright red berries received is the fruit of the so-called "Jack-in-the-Pulpit," or Indian Turnip, which is not uncommon in the timbered sections of the Northern states. This plant has no special merit, but is interesting on account of its peculiar flowers. The root has an intensely acrid principle in it, which will almost paralyze the tongue for a short time, if eaten. If the large bulb is gathered, placed in good soil in autumn and taken into the dwelling-house, it will flower toward spring, and it makes a very good addition to our list of house plants.

Salt About Fruit-Trees

S. M. Wright—Common salt is not ordinarily regarded as a suitable fertilizer for fruit-trees, and it is seldom used for this purpose. Some of our best agriculturists have thought that it was a good plan to apply salt in small quantities to sections remote from the sea that have little if any salt in their soils. However, general experience shows that no very valuable results are gained from this chemical. If you want to try salt about your fruit-trees, I would suggest the best time to apply it would be in the spring soon after growth starts. Applied in the autumn, it is so readily soluble that much of it would probably be washed away before growth starts in the spring.

Care of Peach-Stones

Peach-stones should be gathered in autumn, mixed before drying hard with several times their bulk of loam or sand and made into a pile on the surface of the ground or elsewhere outdoors, where they will not dry, but will be subject to freezing.

Treated in this way, in the spring of the year it will be found that the stones, or nearly all of them, have opened. Those that have not opened should be cracked with a hammer. The pits should then be planted about six inches apart, in rows three feet apart, and are very sure to grow. They will have made a growth of two or three feet by the first of August in the Northern states, at which time they should be budded, and the next year will make salable trees. If the intention is merely to grow the trees on to get new varieties or to grow seedling peaches, of course budding is not necessary.

How to Know Peach Yellows

Peach yellows is easily confounded with several other diseases, and any weakness of the tree is often termed "yellows." This disease is often extremely troublesome, but is not clearly defined. Its first appearance is generally shown by a weakening of the tree and a yellowish growth from the buds near the extremity of the twigs which usually appears late in autumn and even early in spring, and later by a growth of a large number of small "tufted" twigs, having yellow leaves. The fruit is spotted, its flesh marked with red lines, it ripens early and is of inferior quality. These latter symptoms are most characteristic. In Michigan and some other states I believe it is forbidden to ship such fruit.

Edible Nightshade

The large, shiny, black berries are a species of Solanum (commonly known as nightshade). It is commonly known in the seed business as annual huckleberries. This berry is recommended for sauces and can undoubtedly be used for this purpose, and I think it of about the same value as our ordinary wild nightshade, which is used to a considerable extent in parts of North Dakota, where it grows abundantly. When green, these berries contain a poisonous principle, but when thoroughly ripened this is eliminated. To my taste, a good tomato is far better than berries of this kind, and one tomato-plant will produce much more valuable fruit.

Scale on Tea Rose

H. M. C.—The specimens of branches that you send on are infested with a soft brown scale, which is very common in greenhouses. It is seldom seriously injurious to plants that are well cared for. Occasionally, however, it appears in large numbers. The infested portions should be cut off and burned or the scales scraped off with a rather stiff tooth-brush and then the whole plant sprayed with kerosene emulsion or strong tobacco-water. The specimens you sent on do not seem to be badly affected, and I think you can get rid of them by using a strong tooth-brush to remove the scales and rubbing the whole plant with a strong solution of laundry-soap.

American Spikenard

R. E. B., Corsica, Pennsylvania—The plant you sent on, which you state grew in shaley soil where it seemed as though there was little, if any, plant-food, is known as American Spikenard, botanically as Aralia racemosa. It is sometimes used in medicine, but not often.

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About Practical Poultry-Raising

Winter Egg Production

TO OBTAIN a breed of fowls that are perpetual layers is the object aimed at by many. This is an impossibility, for Nature will exhaust itself and must have a period of rest. In order that we have a perpetual production of fresh eggs, the business must be arranged beforehand. There is a difference in breeds, some laying better than others at any time of the year, and others again giving most eggs in winter. There is little difficulty in obtaining eggs in summer, but the winter eggs must be worked for.

Hens that have laid well during the summer cannot be depended on for late fall or early winter, even if well fed, but will generally commence in February and keep it up throughout March and April, giving a good supply of eggs if they are not too old. But it is better not to allow such birds to go into the winter. They are generally fat, after having finished the annual molt, and should be killed for the table. After the second annual molt hens are apt to become eggbound, especially if well fed and fat. The excess of fat that accumulates about the lower intestines and ovaries weakens these organs and renders them incapable of performing their offices. When left too long the bird becomes feverish and the flesh is unfit for food. The better way is to avoid this trouble, since there is no cure, by not allowing the birds to go into the second winter. Trouble of this kind seldom occurs with pullets or young hens.

To obtain a supply of winter eggs, we must have the chicks out early in the spring. Leghorns and some of the smaller breeds will do in April or May, but the Brahmas and the Cochins must come off early in March, that they may have the full season for growth.

The Asiatics are generally good layers in winter, and need less artificial heat, as Nature has not furnished them with any ornamental appendages which suffer by exposure to frost. For them it is not necessary to spend large sums in warm buildings. What they can dispense with in this respect they demand in feed, which must be given regularly, and varied with animal and vegetable diet. The supply of water must never fail. We must feed and feed a long time before the eggs will come. Any breed of hens will consume an enormous quantity of feed before commencing to lay, but after having once begun they will not require or even take so much grain. When laying, their great craving is for vegetable and animal substances and crushed clam or oyster shells.

Fowls that are regularly trained have certain portions of the day for their different feeds. My birds require their shells at night as well as their greens and their grain in the morning, and always fresh water.

When one has the time and convenience and enjoys the petting of fowls, making warm stews on very cold days is an admirable plan and the birds relish them marvelously. Chop beef or pork scraps fine and put them into an old kettle half full of water. While stewing, throw in a dozen chopped onions and two dozen cayenne peppers ground as fine as coffee. Thicken the mixture with cornmeal, and serve it around among the hens hot. They relish it amazingly when once taught to eat it, and will look for the ration daily. On cold winter days give this feed between two and three o'clock in the afternoon, and the chickens get their crops warmed up for the coming cold at night. It scraps are not handy boil unpeeled potatoes and serve in the same manner, adding a little grease or cold gravies left over from the day before.

The combed varieties require warmer quarters and sunnier exposure than the Asiatics, and are good winter layers after December and early in January. They will lay in the fall if early hatched, but the change of fall to winter and the getting into winter quarters affects them, and they seldom commence again before the days begin to lengthen, at which time Brahmas will cease egg production and become broody. Where one has the equipment, it is well to keep both kinds in order to insure a supply of eggs. It is useless to expect many eggs from old fowls of any variety.

Have the building ready early, and the fowls of the right age and in good condition to insure success. The business of our domestic hen is to produce plenty of eggs and we must feed her for them, otherwise we get nothing for our labor.

C. A. UMOSELLE.

Fat Turkeys on Free Range

THE best success I ever had in fattening turkeys for market has been by not confining them, but letting them roam where they wish about the farm. I shut the other fowls up in their yards and let the turkeys remain on the range until they come in of their own will, which they will do if fed regularly night and morning with food where they can find it whenever they wish. Turkeys eat little at a time and as the insects disappear on the range if they have a yard near their shed with a little wheat and plenty of old corn and grit and fresh water always ready for them they will not wander so much.

Turkeys cannot be successfully fattened if they are confined, for they are worried and will not thrive. I have had fat young turkeys at Thanksgiving-time that could not be beaten by any I have ever seen that had been confined in small yards when fattening.

Other fowls must not be allowed to annoy turkeys. A hissing goose or quarrelsome cockerel or squalling guinea will do them a great deal of damage. Turkeys are born cowards with all their braggadocio, and if conditions are not agreeable at home they will stay away where they can be by themselves, and thus they do not get fed often enough to take on flesh rapidly.

I never let the turkeys stay out over night, but drive them into a shed and teach them to roost there every night. This saves a lot of loss by foxes, etc. Then, too, when they roost at home they can get their early breakfast before leaving in the morning.

For their feed I find corn (whole and cracked) and wheat about the best feeds to give them for quick fattening. They are fed in troughs so as to keep their food clean, for I believe sour, dirty food does not make the best flavored meat. Plenty of cool fresh water should be kept before them at all times, and, if you have it, skim-milk is excellent.

Some turkey-raisers give roots, such as mangels and turnips, or cabbages, sliced small. Grain can also be fed in ground form, mixed with skim-milk to form a sort of mush. Barley-meal, if you have any surplus of it, is an excellent fattener.

If the turkeys are well grown from the start, and their surroundings are kept clean and if they are even in size, they will do much better than to have little and big together.

The best lot of turkeys I ever raised were hatched and reared with common hens and never shut up after they were a few weeks old. By preference they roosted in trees, and at Thanksgiving-time they were well matured and fat. Plenty to eat was the rule. They were kept free from insects, reveled in grasshoppers and had open sheds to stay in if they chose, but were never confined.

A. E. VANDERVORT.

More About "Lice-Proof" Roosts

IN OUR issue of September 10th, Mr. Klinkerman recommends the use of lice-proof roosts, made so by the use of wire legs set in oil-cups. A correspondent disagrees with Mr. Klinkerman. He says:

"Mr. Klinkerman is doubtless citing his own experience, but the magnitude of the poultry interests is tremendous, and there are hundreds of thousands of poultry-raisers who would not agree with him. It is true that the lice cannot get across the oil-cups and reach the fowls, but you will agree with me, I am sure, that the oil-cups will not prevent the vermin from leaving the birds and getting down upon the roosts. Poultry give vermin to each other, and lice and mites get onto the roosts from the birds; and I doubt whether more than a small proportion of the vermin get to the roosts in any other way.

"There is just one way to rid hen-houses of vermin: First clean the birds thoroughly, segregate them in the yard, and thoroughly disinfect the poultry-house, destroying all vermin that are in it. Then there will be no vermin for the birds to carry back, and the place will be kept perfectly clean."

Wild Hens and Wild Men

A GOOD many times when we speak of wild hens we ought to talk about wild men instead. It is a fact that one man will take the very same hens that another calls "wild as hawks" and treat them so they will be as gentle as doves. If a man yells like a wild Indian every time a hen ventures into a place where he thinks she ought not to be, "SHOO!" so you can hear him clear over into the next township, and perhaps throws the broom or shovel at her, it may as well be set down as a fact that those hens will be wild. How can they help it? They have a wild man over them.

But if a man takes those very hens and puts them in a place where they ought to be and keeps them there; if when he goes among them he is gentle and careful not to frighten the birds; if he feeds them and now and then takes one of them up in his arms and talks to it in a low and familiar tone of voice, it will not be long before he will have his hens as tame as can be. "What! Talk to hens? That's a great notion!" Do you say that? Then I say you do not know much about hens. Hens are sociable. They like to be treated like sociable beings. They like to have you visit with them.

And if you want your hens to do well, you must treat them right. You cannot abuse a hen and expect her to do her best for you. Get that thought well in mind; and remember, too, that the goodness must be in your heart and not on your lips.

E. L. VINCENT.

Points for the Poultry Lover

Wheat is a fine morning feed. Warm it in cold weather.

Boil some of the small potatoes, mash them and feed them to the hens. They make eggs fast.

Never feed moldy food of any kind to a hen. That's the way a good deal of sickness comes to the poultry yard.

When you are laying in your grain for winter feed, don't forget to put in a nice lot of oats. You cannot find any better feed, no matter where you go.

Hens are like folks about all wanting the highest places. They will quarrel over them, sure; but put them all on a level and you will fix them all right.

Be neat in your hen-housekeeping. Have a big box handy to the houses and keep the manure good and dry. Wet hen-manure is spoiled for fertilizing purposes. Dry, there is none better on the farm.

Doctor ailing hens with the sharp edge of an ax. You can affect a cure that way a great deal quicker than any other and it will pay better than to dope them, especially when you don't know what ails them.

It is all right to fight rats and all the rest of the enemies that come to the lover of poultry, but don't forget that the greatest enemy of all, and the one that is the hardest to lick out is neglect and carelessness. We are apt to fight that last of all, when the truth is we ought to begin there first.

E. L. V.

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Live Stock and Dairy

The Work-Team in Winter

One winter day I went into a farmer's barn just as he was feeding his work-team. He dropped ten large golden ears of corn in each manger.

"Are you not feeding too much corn?" I asked. "I don't think a team needs as much grain in winter as during the working season."

"I believe in treating my team as well in winter as in summer," he remarked.

But was he treating his team well? Wasn't he really doing his work-horses an injury? He was simply burning up their systems with corn. He was feeding very little hay, as his crop of grass had been short. I believe this man was pursuing a dangerous policy. I knew a farmer who, like this man, fed his team the same grain ration the year around whether they were on heavy work or standing idle in the stalls. In the spring he lost one of the horses, a fine animal worth over one hundred dollars.

The work-horse does not need so much grain in the winter as in the summer, for he is using up less energy and does not need so much strength. Of course if he is exposed to the rigors of winter without comfortable shelter more grain will be needed to keep up the heat of his body and keep him in flesh. But shelter is cheaper than feed.

I have never seen better results with a winter work-team than those I obtained with the following feed. I give four ears of corn, medium-sized, morning, noon and night, varied sometimes with only two ears of corn and a quart of bran or oats, a change that is relished and is very healthful. I give plenty of good hay, clover or timothy. A good forkful night and morning is sufficient for a fair-sized horse. It never pays to feed musty hay. Colic, heaves or some other disease may result.

The stalls of the work-team should be comfortable and commodious. A horse can never be his best when exposed to rigorous winds or compelled to lie on cold and muddy ground. Let the straw-stack supply a sufficient quantity of good bedding. It pays to furnish plenty of pure water, not too cold. With this care the work-team will be in number-one condition when the spring work comes on, and the farmer will not be hampered by a team unable to perform the task in hand. W. D. Neale.

The man who will let his horse freeze for hours at the town hitching-post while he gossips around the hot-air register in the grocery-store is on a straight road to a place where he would give a whole lot for a whiff or two of cold air, if the orthodox folks are right in their faith as to the destiny of the ungodly.

A curry-comb and brush are not merely implements for sleeking up the hair of a horse to make him look nice. His skin needs them. Work these wholesome tools thoroughly for the good of the beast, as you cultivate the soil for the growth of the corn. It will add to the health of the horse, save feed and be worth dollars.

The time for cursing the automobiles has gone by. A few years ago it was quite the proper thing to do, and most folks seemed to think it was an outrage that the new-fangled machines were allowed the use of the public highways. But the motor-car has come to stay. You are bound to meet it, even on the most unfrequented roads. Count it as one of the things you must get a horse used to.

A variation in the horse's feed is good for it, especially during the winter months when the animal is entirely deprived of green food. While alfalfa is not desirable as a regular ration for various reasons, a feed of clean alfalfa hay, say once or twice a week, is very wholesome. The grain ration should be varied occasionally. Oats, wheat, rye, barley and a mixed chop feed should be substituted frequently for the regular ration of corn, which is the staple grain feed of the Middle West. A horse with a varied ration will stand the winter better and come out in finer shape for the hard working season.

It is a matter not only of mercy but of economy to give the breeding stallion a roomy, airy stall and a chance at outdoor exercise, over winter. Too many owners seem to think they are doing their full duty in maintaining their animals alive between seasons. Too many fine stallions are cooped all winter in darkness and neglect, and come out in the spring in a run-down, filthy, and vicious condition. No amount of spring feeding and conditioning quite makes up for these set-backs. Give the stallion room to keep his muscles active. There is no reason why he should not be broken to take out his exercise in work.

A horse and cow should never be fed from the same manger. Most horses have a dislike for cows, and will not eat well of hay that has been nosed over by one. If it is necessary to stable a horse alongside of a cow, as many small farmers and village residents have to do because of lack of barn room, have the manger partitioned so that the provender cannot pass from one to the other. It is best to have the stalls separated by a solid partition reaching to the ceiling. The excretions from the cow are more or less nauseating to the horse, and the most of horses will not do very well if the stalls are the ordinary open ones. This is especially so if the horse is kept in the barn all day, without being allowed a run outdoors. M. G. Rambo.

The Colt in Winter

The future value of the colt will be governed largely by how well he gets through the first winter. If he is poorly cared for and comes out to grass poor, with long hair, a lousy and bony body, he will be so stunted that he will never get over it. Instead of making a horse worth one hundred and fifty dollars, he may never be worth a hundred.

I am certain it pays to keep the colt in the height of health and good flesh during the first winter, that he may grow right off in the early spring. First, the colt should be taught to eat grain and hay before he is weaned in the fall. It is therefore unwise to take the colt off the grass and remove him from the mother the same day. Let the colt run to the stable with the mare until he learns to eat oats from her trough and hay from the manger. He will not be long in discovering the good qualities of both. It is then best to accustom the colt to halter in a stall next the mare. This will save fretting of both that would be caused by removing the colt out of sight of the mare. The haltered colt will save the farmer much running and aggravation. He can lead the colt to the water-tank without trouble two or three times a day, and he will not be continually running out when being fed. When the colt needs exercise, as he does an hour or so a day, it is easy to unsnap the halter-strap and turn him loose in the barn-lot.

The colt must have a good, warm stall, for wintry winds pierce his tender body and cause him to lose flesh. Some farmers find it profitable to blanket their colts during the extreme cold weather. A good bedding of chaff or straw should be furnished, for a colt will detest a wet, filthy stall, and will do poorly standing or sleeping in the mud. The colt should be well curried at regular intervals and care taken that he does not become lousy. Lice consume colt flesh very rapidly. Diluted coal-oil rubbed down the colt's back will exterminate them.

The feed for the colt is all-important. His young teeth are not good enough to bite hard corn from the ear, and even the shelled corn may be too tough. Ground corn, oats and bran will make a good grain ration, fed mixed or separate. The amount depends on the size and condition of the colt. A pinch of salt thrown into the morning feed will be relished. Clean timothy is good for colts, but I prefer clover, as it is more easily masticated and digested. Never feed musty hay of any kind to the colt. The colt should be given all he will eat each day without gorging himself or throwing any out of the manger.

The farmer who puts time on the care of the colt will be rewarded with a good horse, while he who neglects him will have to be content with a second-rate animal. W. D. Neale.

Mares and Colts in the Fall

From This Stage on, the Development of the Colt Depends Not on His Mother, But on His Owner

Horse Sense

Be careful about letting your horses drink from the public watering-troughs when there are any contagious diseases in the country. The trough is a fine distributing center for infection.

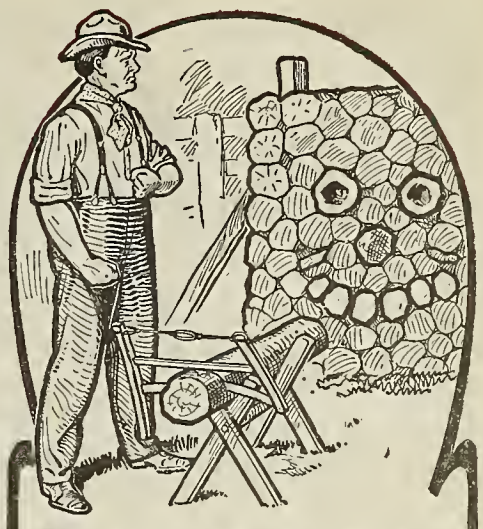
Never work a young or spirited team with a poor harness. Many an accident that ended in serious damage and the ruin of a good horse has been caused by harness which gave way at a critical moment.

Some men are simply horse-killers. They have no idea of the limit of an animal's strength. They appear to look upon a horse not as a thing of flesh and blood, but as an inanimate machine. Such a person should plow with an engine and do his driving with an automobile.

The Dairy Barn

Cracks in the dairy barn mean leaks in your dairy business, for no draft is quite as damaging to the herd as a sifting wind.

Most farmers feed an extra amount of roughage to save grain, but the successful dairyman doesn't. M. A. C.



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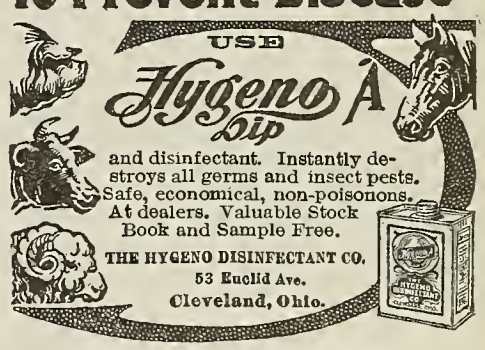

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Live Stock and Dairy

Calving at Intervals

MANY Western dairymen are eager to have their cows calving about one time, particularly in the fall and winter, when milk is high-priced and an abundance is an advantage. They also think it easier to feed and care for a lot of calves when all are about the same age and developing at equal rates. There are, however, plenty of arguments against the practice and in favor of having the cows calve in succession, throughout the year, maintaining a constant milk output for the herd.

One of the best milking herds I know of contains about thirty-six cows, three of which as a rule calve each month. There is never a scarcity of milk, a condition absolutely necessary when one supplies a milk route, and desirable when one sells to a creamery. A higher quality of milk is also maintained. When cows have been milked for months, their product falls off in quality. When the majority of the herd are dwindling, the bulk is bound to be poor milk; but when part of the herd are coming in fresh all the time, the average output is kept up to standard.

When cows are bought in, it is good policy to introduce them when milk is highest in price and an immediate big return is secured for the new produce, but new-comers should be brought in line as soon as possible. Some cows may be bred a few weeks after calving, while others go months; it may be necessary to skip the service with some as coming too fast, but with a little calculation this need not upset the regular and successional calving arrangements so advantageous under most circumstances.

W. R. GILBERT.

Don't Wet the Cow's Teats

MANY people have the habit of moistening the cows teats before milking by dipping the fingers into the milk and stripping the cow (imitatingly) until the teats are sufficiently moist and slippery to make the milking process easier. The whole bucketful is thereby contaminated by dirt from the milker's hands or filth from the udder.

There are other reasons besides the sanitary one for dispensing with the practice. In summer, immediately after being milked, the cow's teats will be covered with flies, attracted by the coating of milk. It is not hard to imagine how unpleasant and aggravating it would be to be compelled to dip one's hands into warm new milk, and then be unable to keep the flies off until they were dry.

During the winter, however, the practice does most positive harm. In the coldest weather it is not uncommon for cow's teats to be frosted, even where this practice is unknown, and wetting them makes them three times as liable to frost-bite. Such an injury is not only painful, but harmful and cannot help but lessen the milk flow.

Not only for cleanliness' sake, but out of thought for the annoyance and suffering of the animal, the good milker will avoid this habit.

F. W. GREENE.

Success With Jerseys

AS IT is my privilege to visit the homes of some of the important stockmen of this section, shall I keep the knowledge thus gained under a bushel, or as freely give of the fruit of knowledge thus gained, as has been given unto me?

Every farmer should study that which he can produce best, then go after it with all his might. If it is cows, settle your mind on the kind you wish to produce, beef or dairy; then start with the best and build up your herd.

Mr. W. C. Welch of Warren County, Ohio, has been a breeder of Jerseys for many years, and is building up one of the heaviest milking herds in this section. It has taken Mr. Welch nineteen years to learn how to properly feed and handle cows to gain a profit and reap a success. Ignorance is expensive. Here you have the information and instruction of a progressive, successful man, for the reading.

Nineteen years ago Mr. Welch bought two registered heifers at one hundred dollars apiece. After a short period one of them was thrown out for false sale and pedigree. All the recompense Mr. Welch got was the satisfaction of knowing that the man who had defrauded him and others must suffer a prison sentence.

Not daunted by this loss and shaken confidence, Mr. Welch again bought two registered Jersey heifers, but this time fortune smiled in dollars and quality.

I found his cow-barn a model of convenience and cleanliness, with a capacity for twenty head. It is built with a central alley, cows facing. Through this alley the ensilage car is run on a truck, feeding two cows at one stop. Each cow is given from thirty to forty pounds of ensilage, sprinkled with salt, at a feed. But cows are like men—no two alike—and their tastes differ. The quantity eaten by one cow would be a surfeit for another. You must study your cow. Have the same man do the feeding, as he soon learns their individual needs. He also gives each cow about one half of a gallon of ground grain per feed. He feeds hay in the barn and on warm days in winter turns out and feeds fodder.

He has sown eight acres to alfalfa, and expects it to take the place of the high-priced grain food, but it is yet to be tested with him.

He tries to have all cows freshen in the fall, as at that season butter fat commands a better price, and in the spring when you turn to grass you virtually freshen your cows again.

Let the farmers breed up and feed up, and the cow will prove a more paying investment.

C. A. THOMPSON.

Selecting the Ram

"THE sire is more than half the flock," and the sheepman should give his best attention and judgment to the problems of selecting a ram. It is better to procure one a bit under size and have him from a twin-producing ewe. A bold, wide face, with prominent eyes, even if a bit ferocious, is better in a breeder than a timid, narrow face. The body should be straight and clear-cut from shoulders to tail, with well-filled withers, and, as a first essential, a strong, level back. The chest should be deep, and the ribs back of the shoulders should round out well. The legs should be straight, strong and short, but not too fleshy.

Such an animal should get a paying flock of lambs if care is used in selecting him well-made ewes of sound constitutions.

Where a large flock of ewes are kept, two rams are essential, one for day service and one for night service. While they should not be over fat, they require extra care and strengthening feed. Corn and oats should be fed sparingly, with supplementary roughage, clover or alfalfa hay being the best, while good corn-fodder will answer.

In-breeding is a precarious practice and should be avoided. Where two or more neighbors raise the same breed of sheep, the rams may be exchanged the second or third year, with profit to both. In buying, men following this arrangement should be careful to order from yards or flocks in nowise related.

D. B. PHILLIPS.

Live-Stock Dividends

Why don't you, Mr. Enterprising Stock Feeder, earn a larger profit per-centage on your fat cattle? There's just one thing necessary in your system—you select good steers, give good care and sound grain, but perhaps you leave nature, *unassisted*, to do the rest. If you'll think, you'll realize that no animal can consume such a grain-feed as you give, day after day, without digestive disturbance. *You must, therefore, fit the animal to stand heavy feeding*, and *that's* best done by giving, morning and night, a small portion of

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Live Stock and Dairy

Autumn Care of the Ewe Flock

MANY sheep-owners neglect their breeding-ewes in late summer and early autumn, and thereby incur severe losses, not only in having low-grade lambs in the fall, but also in the failure of the ewes to become pregnant at mating-time. At this season flock-owners should put their ewes under the most favorable conditions to take on flesh so that they may be in the best possible condition by the time the mating-season arrives.

Sheep growing and breeding is a line of animal husbandry in which there is no place for abuse and neglect, and only the man who gives his sheep the best care, food and management will succeed in the business. The late summer is a very trying time for the breeding ewes. Unless they are maintained strong and vigorous, deleterious influences are bound to creep in and cut down the profits. It is well at weaning-time to have supplemental forage crops so they may have good pasture. When they recover their normal condition, gradually increase their rations until they begin to gain flesh. The ewes that have suckled their lambs well are certain to be reduced in flesh, and should be put into vigorous condition before mating.

Many flock-owners make a serious mistake by disposing of the ewes that are in bad condition at weaning-time. The way to judge the value of the breeding-ewes is to examine the quality of the lambs. In nine cases out of ten the very best lambs belong to ewes that are run down in flesh.

Instead of selling the best mothers, the intelligent flock-owner devotes his attention to conditioning them for the mating-season. Many make a serious mistake by feeding the breeding-ewes a ration of highly-concentrated, fat-forming foods during the conditioning period, to put flesh on them rapidly; but this often proves injurious to the breeding qualities of the weaker ones. The best ration for this purpose is one made up largely of pasture and forage crops and the grain produced on the farm. Many successful flock-owners feed some of the highly-concentrated by-product protein foods, but my experience has proven that oats, barley, wheat and a limited quantity of corn is better for the ewes at this time.

If provided with plenty of pasture and forage the breeding ewes can be maintained in a flesh-gaining condition with very little grain food; but if the season is extremely dry it will pay to feed supplementary foods. A little dry roughage is eaten with great relish, and many flock-owners feed a dry ration once a day, thus getting the flock gradually accustomed to the dry ration before they are placed in winter quarters. This provides against deranging the ewes' digestive organs and modifies the influence of the sudden change in their food. Many successful men find that their ewes take on better flesh and hold their condition better during the mating-period than when they must depend entirely on green and succulent forage. While good pasture and forage crops will cause the ewes to take on flesh rapidly, they are not sufficient for ewes that are well run down in flesh and vitality. W. MILTON KELLY.

Winter Dairy Notes

Winter days call for winter methods. The dairy sire must not only be pedigreed, but "tried and true."

Don't get the delusive idea that because it is cool the air in the dairy barn will remain fresh and healthful if the cows are allowed to breathe it over and over through the long winter nights. If there happens to be a tuberculosis case in the herd, this rebreathing and vitiation of the air will be sufficient to spread the disease. We must ventilate or take the dire consequences.

Filth is filth, in winter as in summer, even though it does not make itself quite so noticeable. Cows are confined in their quarters in winter longer than in summer; and it is necessary to clean out the barn at least once a day. When it is too stormy to admit turning the cows out, two cleanings daily are required to keep the air from becoming foul and unhealthful. M. A. COVERDELL.

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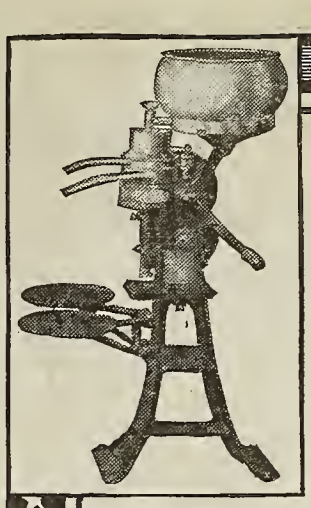

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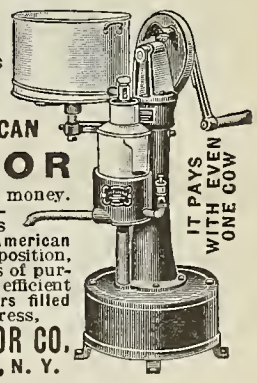

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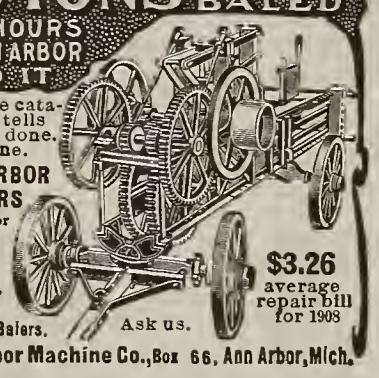

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ANDERSCH BROS., Dept. 199 Minneapolis, Minn.

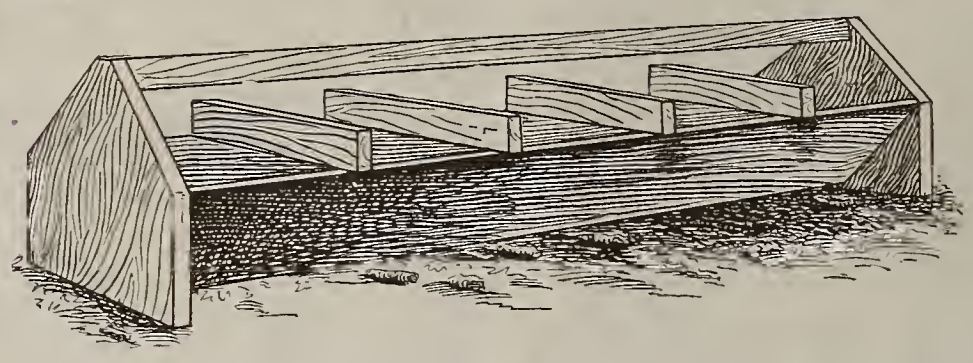
Practical Farm Notes

"Equal-Share" Troughs

The accompanying cut shows the style of trough described by W. H. Underwood in his article on fall pigs, Page 6 of this issue.

The trough is the ordinary V-shaped pattern, the end pieces coming to an angle at the top. Their points are connected by a brace set like the ridge-pole of a roof. Cross-bars extend across the trough, limiting the feeding operations of each hog to one section, between bars. There should, of course, be just room for the head of one hog between cross-bars. These crosspieces are less liable to be knocked off if put on with screws rather than nails. The whole trough should be of well-seasoned wood, oak preferred. Inch boards or even lighter will do for small troughs, but where heavy, grown hogs are fed, inch-and-a-half stuff is needed.

This style of trough can be had in galvanized iron. In some makes there are metal struts extending from the "ridge-pole" piece to the ends of the cross-pieces. These serve to make still more marked the divisions between each hog's eating-niche and the next. The struts also keep hogs from standing lengthwise in the trough, as they are liable to if water is left in it hot days. The ridge-brace helps to prevent this, and is sometimes made of a board set edgeways, coming down onto the crosspieces and dividing the trough in the middle. Even that, however, only partially solves the ancient problem of keeping the hog's front feet out of the trough.



The idea of dividing up the feeding space by crosspieces can be applied to old fixed hog-troughs or the feed-racks of other stock.

Corn-Stubble or Cover Crop?

Through all the country, many fields lie idle from the time the corn crop is harvested from them until late the next spring. Especially is this the case in the sections where farmers have quit growing wheat.

We wonder how many stop to think what is going on in such soil during the fall and winter months. The corn crop ceases to appropriate the available plant-food long before hard freezing sets in, while nitrification is active in the soil, until late in the fall. The result is an accumulation of available plant-food which will be lost by leaching unless there is a growing crop occupying the land during fall and winter.

This is one economy of the wheat crop. Where it can not be grown at a profit, red or crimson clover, depending on the region, rye or some other crop that will live over winter should be sown to hold the available plant-food.

This is much more economical than to make up for leaching with commercial fertilizer, and it also adds humus to the soil. Rye and crimson clover can be turned under the next spring or harvested.

Plant-food saved is more economical than plant-food purchased unless the cost of labor in saving it is too high, and considering the pasture value of either rye or crimson clover, they can be used to advantage almost anywhere.

If wheat can be grown at a small profit, an excellent system is to practise a four-year rotation of corn, wheat and two years grass and clover mixed.

A. J. Legg.

New Saws and Fresh Filings for Farmers

Good crops demand good roads.

The optimistic hen never broods over anything except when it is time to set again.

It will not do any more to be content with some of the old ways because they were good enough for our fathers and grandfathers. The question should be, What would they do with our opportunities if in our place?

There are two classes of people—those who are ever on the lookout for something for nothing, and those who at times gladly give their services, expecting nothing in return.

Farm life is very good,
And getting better all the time;
The farmer knows it, too,
And sits back feeling pretty fine.

We believe this about the farmer: He is sending his sons to college and he himself is gaining knowledge at home—which means that in the future the farmer will be on an intellectual plane with the teacher, lawyer and preacher.

Here are three reasons why a farmer should have an automobile: First, it would increase his interest in good roads. Second, it would shorten the distance between his farm and the city. Third, it would show to the merchant that he does not hesitate to spend his money for the better accommodations of life.

Wm. J. Burtscher.

"Tainted News"

A Washington correspondent writes as follows: It is becoming evident that those who advocate the use of benzoate of soda as a food-preservative are resorting to desperate methods to mislead the public. Their methods have been ventilated in the newspapers and magazines, one putting the case: "The same folks who taint your food are trying to taint your news." One of the methods utilized is for a press-agent in New York to write articles to the newspapers under a fictitious name, posing as a scientist interested in the matter from a purely scientific standpoint. Another scheme was editorially exposed in "The Outlook" last month, as follows: "An organization bearing the high-sounding title of the National Association for the Promotion of Public Health, and purporting to be a philanthropic and public-spirited society, is really maintained as an advertising or press-agency by some at least of the manufacturing group which use benzoate of soda. This press-agency recently submitted to "The Outlook" for publication an article by a physician which, under the guise of a charitable appeal for poor children suffering from infantile paralysis, was a thinly-disguised advocacy of the use of benzoate of soda in preserved foods."

It was not until a few days ago, however, that Washington had a demonstration of how far they would go in attempting to mislead the public through the press, and so skilfully was the "plant" prepared that it is no wonder that even so thoroughly reliable and irreproachable an organization as the Associated Press fell for it. On October 6th the trustees of the American Institute of Homeopathy met in Washington to consider matters pertaining exclusively to that organization. They adjourned that evening and most of them left the city. That night a man of eminently respectable appearance called at a number of newspaper offices, among others the Washington office of the Associated Press. He carried a number of copies of a statement, one of them with the "O.K." of Dr. J. Ritchey Horner, of Cleveland, secretary of the trustees. Whether intentionally or otherwise, he conveyed to the Associated Press representative the idea that he was Doctor Horner, and on the strength of this the Associated Press carried a despatch which began: "Characterizing the action of the American Institute of Homeopathy recently in condemning the use of benzoate of soda as a preservative as having been too 'hasty' the trustees of the association, which met here to-day, adopted a resolution recommending that the institute at its next annual meeting reconsider its step."

What had actually occurred at the meeting was this: A resolution asking the institute to reopen the question was presented to the board, but instead of being adopted "unanimously" it was referred to the committee on resolutions, a point of order having been made against it by Dr. J. B. Gregg Custis, of Washington, that the trustees had met to consider other matters and that the benzoate-of-soda controversy had no place in their deliberations. This was confirmed by the stenographer who reported the meeting, Dr. W. O. Forbes, of Hot Springs, Arkansas, and Doctor Custis. Doctor Horner was interviewed over the long-distance telephone, and denied that he had visited the Associated Press or given any one the right to use his name as authority for a statement that the board had "adopted" the resolution.

"How do you know that's true?" says some one in the course of an argument. "I saw it in the paper," asserts his opponent. That ends the argument.

Even in the case of a thoroughly honest paper, twentieth century news is sometimes open to what the lawyers call "a reasonable doubt."

Surer Chances Nearer Home

An Ohio subscriber of Farm and Fireside, G. C., referring to Mr. W. Milton Kelly's article of August 25th on the choice of a home-site, inquires as to the advisability of leaving a position in Columbus for the newly-opened lands in certain parts of the West. Mr. Kelly replies:

This is one of the most difficult questions that I have been called upon to answer through an agricultural paper. To be frank with our Ohio friend I would say, think the matter over very carefully before giving up your present position and investing your two thousand, five hundred dollars in a new country. If you were sure a change of climate would prove beneficial to your wife's health the move would be justified; but often such a change proves injurious, and you might be compelled to sell at a sacrifice and move again.

Some men will succeed where others fail. It is more in the man than the location. I have seen places where on one side of the road were fine acres, fine stock and fine buildings and on the other side the reverse, everything going at loose ends and the land growing poorer every year. I am sorry for the man who is unfortunate, who has sickness or the like to contend with, but that is not always the reason of such a great difference in the same locality. It is because the one man is a farmer, and the other is not a farmer.

If our friend has a fair knowledge of general farming and will work and study, I believe he would do better to buy a nice home somewhere near his present location, where he would have a fair assurance of success in combining fruit-growing, poultry and bee keeping and trucking. He knows what his capital will buy near home and is taking no chances. I believe that there are as good bargains to-day in Ohio and the East, in farm lands, as in any section of the country.

Agricultural News-Notes

Sugar beets and alfalfa forms the basis of a food combine that is not excelled.

Idaho is reported as shipping more lambs of the highest quality to market than any other state in the Union.

Statistics gathered by the New York custom-house, go to show that the consumption of edible nuts is outgrowing production.

In Hawaii a ton of sugar is two thousand pounds, whereas elsewhere two thousand, two hundred and forty pounds are required.

When the Erie Canal is enlarged, each of the one thousand-ton barges will carry thirty-three thousand bushels of wheat from Buffalo to New York.

Mr. W. R. Hill, of Lane County, Oregon, reports the threshing of two hundred and fifty-eight acres of wheat which averaged fifty-one bushels to the acre.

Cotton-growing is proving a success in the Imperial Valley, San Diego County, California. A cotton-gin is being erected at El Ceuro, consisting of two gins and a compressor.

The first coöperative dairy in Denmark was established in West Rutland in 1882. In 1906 there were one thousand and sixty-eight dairies with a membership of one hundred and fifty-seven thousand, five hundred.

The general government has just advertised for bids on fifteen thousand cases of the best quality of tomatoes. Each case is to contain twenty-four three-pound cans. The cans are to be enameled lined and after being filled and sealed are to be lacquered. *

If you are an outdoor man, a city man or a traveling man— this is the underwear you should wear all winter.

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This curly warm fleece keeps the body in a normal, healthy glow. It never "sheds," "pills up" or stretches out of shape, and your size is guaranteed to fit you. Ask your dealer to show you HIGH ROCK STANDARD FLEECE but insist on seeing the RED Label. If your dealer does not yet sell HIGH ROCK, write us direct. We will see that you are supplied quickly and conveniently. We will also send our

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Rats leave grain for it. Strongest poison known. Die outdoors seeking water.

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Dry, clean, throw it in their runs. Rid your farm of these pests. 15c all stores (or direct from us).

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SAVE 20% BY GRINDING

The STAR SIMPLE SWEEP MILL grinds ear corn or any small grain. You get more feeding value from ground feed and your horses do the grinding. Profit comes to Star owners from both ends. Free **Booklet** giving prices on Sweep and Belt Powers.

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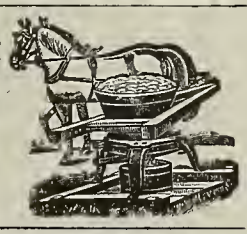

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Would you like to know exactly how you stand at the end of each year?

Your bank balance does not always tell the story—perhaps more acres or new machinery cut into the bank balance.

You know of course whether the year has been a good or a bad one, but you want to know just what you are worth.

This is the only book on accounts for farmers.

"How to Keep Farm Accounts" is a well-made, well-printed book of 150 pages, substantially bound in cloth. Thousands have been sold at two dollars each.

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FARM AND FIRESIDE
Springfield, Ohio

Farm Notes

Early Tomatoes a Money-Making Crop

On page 6 of the October 10th number of FARM AND FIRESIDE I noticed an inquiry from a Tennessee reader about raising early tomatoes. As their cultivation is a flourishing industry here in southern Michigan, I may be able to offer some suggestions that will help this one and other readers.

In determining whether tomatoes are suited to any given locality one should bear in mind that tomatoes will do well on any soil that will produce good potatoes. Warm, sandy and gravelly soil will bring them along earlier than heavy clays.

One should select the patch or field on which he wishes to raise tomatoes in the fall and begin to enrich it. If it can be manured and plowed in the fall, all the better for the crop in several ways. The ground will hold the moisture better than if plowed in the spring, and the manure, being well soaked, will begin to decay early and the plant-food it contains will be more readily available than that from coarse manure plowed under in the spring.

If the ground cannot be plowed in the fall it should be plowed as soon in the spring as the condition of the ground permits. Then working the ground should be begun and repeated at least once a week until time to set the plants. Working the ground thoroughly is a matter of first importance, as it kills the early crops of weeds, puts the land in fine tilth and makes the plant-food available. As the crop grows in a short period of time the plant-food should lie in readiness for it.

The variety selected should be of the earliest we have. The Earliana is as good as any we have tried. The June Pink is a good yielder, but the skin is a little tender for marketing.

In this locality (near Detroit) the seed should be sown by the hothouse man during the latter part of February, and after they have started they should be transplanted at least three times before setting them in the field. Transplanting makes them stocky and encourages root growth, a matter of first importance. While the weather is yet too cold to set the plants in the field, the boxes containing the plants should be set where the sun will shine on them during the middle of the day, out in the open air, to toughen them.

The plants should be set in the field as soon as the danger of frost has passed. If one has plenty of land, and does not care to economize space, the plants can be set four feet apart one way, and six feet the other, in order to give plenty of room for the pickers and a chance for the push-cart to pass along in gathering the crop. By that plan about two thousand plants will be set on an acre. If set four feet apart both ways it will require two thousand, eight hundred to plant an acre.

Very soon after the plants are set cultivating should begin, and the ground next to the plants should be stirred with the hoe. If one wishes to encourage a rapid growth, they can sprinkle a handful of nitrate of soda around each plant and work it in with the hoe.

Cultivate as often as once a week, though twice a week is better, and keep it up until the plants are so large that the horse and cultivator interferes with them. As the tomato can utilize a good deal of potash, after the plants have been out four or five weeks it will be a good plan to apply on each acre about five hundred pounds of commercial fertilizer made up of two per cent nitrogen, eight per cent phosphoric acid and ten per cent potash. It can be spread around the plants and worked into the soil with the cultivator and hoe.

As soon as the tomatoes begin to turn red they should be picked and put in baskets. Set these in a dry, cool, shady place, like an open shed or barn floor, and cover with a canvas. In two days they will be well colored and can be sorted for market. By ripening in this manner the skin is not as likely to break as when they ripen on the vines. By wiping with a soft cloth they will shine and look better than if marketed untouched.

Picking July Tomatoes on the Joslin Farm, Near Northville, Michigan

On the Joslin farm, near Northville, Michigan, shown in the illustration, picking the early tomatoes was begun the fifteenth of July. The first few pickings sold for three dollars and fifty cents a bushel. The average yield to the acre in Michigan is around three hundred bushels, but the possibilities are eight hundred bushels to the acre. N. A. CLAPP.

Other Hardy Hedges

In the last issue of FARM AND FIRESIDE I note an answer to a query as to the best plants for hedges. Here in the rugged climate of New Hampshire I am using for a tall-growing hedge the "Cockspur" thorn (Cratægus Crus Galli) and find it a great success. Rapid in its growth, perfectly hardy, with a bright shiny foliage, suffering from no insect attacks other than the brown-tail moth—and they will live anywhere—it is a handsome hedge to look at, and when planted two and one half feet apart, cut back so as to be made to branch low, it will offer obstructions to man and beast that are hard to overcome.

I have also a hedge of Japanese Berberry (Berberis Thunbergii) that for a hedge of three to five feet in height cannot be surpassed for beauty, durability, hardiness and general utility. Planted eighteen inches apart, cut back two or three times, it takes on a thick, close growth that effectively bars any passing through. In the spring when the leaves are first showing, later when covered with its small yellow flowers, at this season when the foliage takes on its brilliant scarlet and yellow tones, it is ever a thing of beauty. Still later, in fact through the winter long, it is covered with the clusters of scarlet fruit, which often continue until the new fruit is formed in the season following. I have never known it to be troubled by any insects or disease. For a low hedge here it surpasses anything in its beauty, its hardiness, its utility and its growth. C. W. HOITT.

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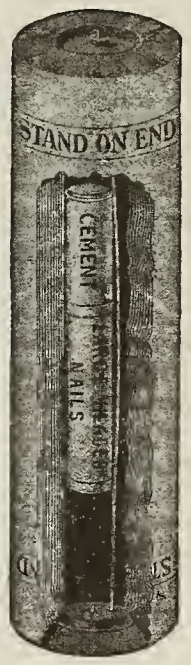

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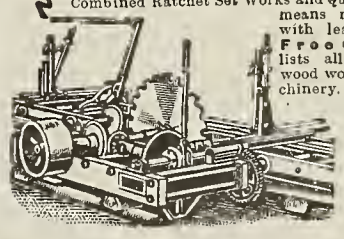

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Hill, Wilson, and the Food-Supply

One of the functions of Mr. James J. Hill in the public life of America is to point out the rocks upon which we are drifting. Some people might call him a croaker; but it is kinder to rate him as a diagnostician.

He finds a sore or a symptom and—always excepting when it is in railway management—he points it out. He is not the faithless physician who talks cheerfully while the patient bleeds inwardly. And so, when we read his statement made at the National Bankers' Convention that as a nation our population is outgrowing our food-supply, we producers of the aforesaid supply may take it as pretty sure that there is something behind Mr. Hill's statement. He is prone to grave prognosis, but he seldom shouts pestilence where there is none. If this gaining of consumption is actually taking place the farmers should know it, and the reason why. If it results from a growth of demand only, so much the better for the farmer. But if it arises from a relative falling off in productiveness of farms, it is not so well.

Secretary Wilson, when asked by a newspaper man as to his view of Mr. Hill's statement, said: "I do not doubt that there is a great deal of truth in the statement of Mr. Hill that the country is outgrowing its food-supply. It is a question that is commanding our attention, and I have set a number of the government scientists to work to discover the causes for such a condition. I do not care to discuss the matter at any length until the report of the experts is ready." This is a report for which the nation will wait with expectation. It ought to throw much light on the extent to which we as farmers are to blame for the situation.

Should We Produce a Surplus?

It may be said that the rise of cities and the development of factory life should be expected to throw the population out of balance with the food products. Great Britain, Belgium and probably other nations have long since ceased to feed themselves. But they have not, as we have, a half-developed continent of agricultural lands. To be sure, the monopoly of British lands in the hands of the gentry and nobility cuts down her home production of foods; but it is doubtful if Britain, with all the arable lands in crop, could do much to overcome the lead which consumption has over production, unless the Asiatic system of intensive farming were adopted, together with the Asiatic standard of living. The British situation is one of a huge system of industrial cities, as dependent on trade for food as was ancient Rome on colonial slavery. Our situation is that of a rapidly-developing manufacturing population, in a rich continent not half tilled.

Mr. Hill thinks that we are to blame because we do not farm well enough. Secretary Wilson thinks that our crops are so largely fed to stock and marketed as meats that they do not go as far as food as they otherwise would. But this is merely evading the question. If we produced more per acre, we should make more meats, and the American still prefers to eat meat rather than corn or wheat or rice as his Japanese brother does. Both Hill and Wilson say that our yields are not what they should be. Our average yield of wheat is about fourteen bushels to the acre. Russia is the only competitor which does worse than this. Germany gets more than twice as much per acre. Austria a third more, Hungary 17.9 bushels, France 20.8 bushels and Great Britain, on her thousand-years-farmed land, 32.6 bushels per acre. If we should average as much per acre as old England, we should put ourselves beyond the necessity of importing for half a century—and we should break the back of Mr. Hill's railroad to carry the tonnage. That we could raise as much per acre if we were good enough farmers cannot be doubted. When we have to do so, we probably shall do it. Our corn and other crops could be improved quite as much, no doubt. And the neglected regions of the United States are coming into use more and more every year. New England is growing more corn per acre than are the states of the corn belt—by more intensive culture. The average yields per acre for the states of Rhode Island, Connecticut and Maine in 1908 were 42.8, 41.3 and 40.5 bushels respectively. The startling thing about this statement is that these three states led the nation in yields. That Iowa, Illinois, Nebraska, Indiana, and the rest of the corn states could beat them if well farmed cannot be doubted. And sometime better farming will do it.

The Effect of American Landlordism

England's food production is cut down by land monopoly. Most of us are oblivious of the extent to which the same thing is true of the United States. The "retired farmer" who moves to town—and is apt to be sorry for it—seldom leaves his farm in the hands of a tenant who will grow the crops he raised from it. In the first place, the American landlord—many of whom will, we hope, read and ponder on this—is apt to be a bad landlord. He has not learned by generations of experience what the nobility and gentry of Europe have found out—that the tenantry which is profitable in the long run must be prosperous, reasonably contented and endowed with a long-time interest in the land. The American landlord is the accomplice of the year-by-year tenant in the most fearful skin game ever perpetrated—the skinning of a continent of its fertility. An organization of American landlords should be formed, who should humbly and prayerfuly ask instruction in the rudiments of intelligent landlordism. Landlordism is in itself, of course, a thing to be regretted. The ideal system is that in which every land-user uses the land he owns; but we can scarcely hope to see that situation brought about. The next best thing for the land is one in which the landlord will study the needs of the soil, in which the tenant will do the same and in which a system of scientific agriculture shall be worked out under a tenure by which rotation of crops, fertilization, drainage and all that enters into the lifelong task of farm-making may redound to the benefit of the tenant and his children after him, as well as the landlord and his descendants. Under such a system the gap between food-supply and consumption would probably widen rapidly—with production permanently in the lead. Under the present system, non-resident and short-sighted landlordism will do much to assist the numerous class of inefficient farmers to put us in the list of food-importing peoples—in spite of the great, rich lands our fathers gave us.

Uncinariasis

Have you laughed at the jokes about the scientist who was said to have discovered the "germ of laziness?" Most of us have. Like many laughs, it was the giggle of ignorance. Let us laugh out of the other corners of our mouths for a moment while we consider the immense importance to country people of the discovery of the "hookworm" parasite—which is what the paragraphers mean when they speak of the "laziness germ."

There is no doubt about it, it seems. Those unfortunate people who seem too lazy to move; who refuse to shingle their house when it's fair because it doesn't need it, and when it rains because it rains too hard; who eat clay and other forms of dirt; who are called by the old-fashioned doctors "anæmic cases," and by others "poor white trash," and who are found mostly in latitudes south of the Potomac—they are sick people, that is all. If we had had a lick of sense we should have known it years ago, when we saw how they looked and what their disordered stomachs craved. There are said to be two millions of them. Probably there are millions more. No one can say how many people who do their work by will power and against an awful depressing feeling of lassitude, but who are still industrious, are really weakened by this old disease which has just been discovered, uncinariasis, or the hookworm disease.

It's all right to have laughed about it—when we knew no better. But, as Doctor Stiles, the government scientist who discovered it, remarked in an address: "It isn't a thing to laugh at when women and children are dying." And he might have added "men," because the disease attacks all ages and sexes.

The hookworms attach themselves to the coats of the intestines and suck the victim's blood. Though only half an inch long, one of them by moving from place to place can create sores and other disturbances; and some victims have thousands. No wonder they are "shiftless!" The hookworm will live in the intestines for several years; but it does not multiply there. Its eggs pass off and hatch in the ground if the sewage is not properly disposed of. Every person afflicted with this disease is likely to infect the earth so as to communicate it to others. Think of the chances for infection about the country school-house! Or about the farm where there are insufficient conveniences. And then if you feel like laughing, why laugh.

The hookworm probably came from Africa with the imported slaves. If so it is another legacy of evil from that first great iniquity. Most negroes in the South have the disease, according to Doctor Stiles, but they are not injured by it as white people are—having become immune to it by generations of struggle with it in Africa. Thus the negroes, while not seriously injured by it, infect the earth to reinfect the whites. The lesson is plain. A campaign should be begun against the disease in every state where it exists—and tests should be made everywhere in cases of anæmia. Farms should look to their sewage-disposal more strictly than ever. Wherever people are found who have the symptoms, they should be encouraged to take the curative treatment which all up-to-date physicians fortunately know how to administer. Doctor Stiles asserts that the two millions of hookworm victims could be cured for a dollar each. It seems a pity that the disease cannot be stamped out if such is the case; for all of these people are sufferers, many of the worst cases are idiotic or feeble-minded, and the little children are growing up stunted and dwarfed in body and mind. A great mass of human misery, mostly among country people, here begs for relief. And country people in the main must study the situation and remedy it.

OUT OF THE LETTER-BOX

Editor of Farm and Fireside:—

In reply to the question raised in your recent editorial, in regard to the rural schools, permit me, a rural teacher, to say that no change of system is needed as badly as perfection of the present system.

You admit that the schools give an elementary education which is the basis of all education, but, of course, it is not presumed, nor should it be, that all the pupils of the rural schools will become farmers.

Children are born with the nature that will shape their future life. Great and noble men, who have made their mark in business and civic life, received their elementary education in the rural schools; should these schools have been conducted with the view of making farmers, these men would have received the wrong training.

The ordinary school period of the child's life is far too short to give the child the necessary basic education and a training fitting him for his life-work. It is the duty of the home to give the training of the tendencies toward which the child shows an inclination. You will observe that a large per cent of the boys and girls who forsake the rural home for the cities are not those who have been given a good education, but those who have been denied this, as well as social privileges. They are not allured to the cities by the instructions of our schools, but driven away by the drudgery, selfishness and slaving stinginess practised in so many rural districts and the restrained, cheerless and unsociable homes.

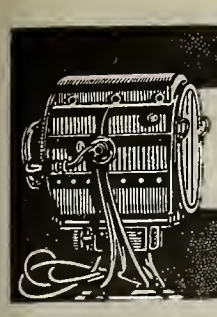
Literature is a great factor in education. Alas, our classic literature is misunderstood. For in its portraits of industry, honesty, virtue, happiness and innocence are found descriptions of rural life.

The glory of God's creation is not found in the crowded streets and weary offices, but in the fields, the brooks and the wild woods.

And how few of our rural schools are supplied with a library of this valuable literature. Yet the home is worse off still. Better have none than the trashy, cheap novels and papers found in so many homes in place of better books.

The rural schools needs be better, but the rural homes need the greater change.

Missouri. W. H. Myers.



In the Public Eye

What I Saw and Heard and Thought in Washington

By Alfred Henry Lewis

As prefatory to something in the nature of a confession, not to say a plea of guilty, let me say a general word about government bonds. Bonds mean debt; debt means taxes; and you have but to pile the latter high enough and you'll upset the public boat. When the boat upsets nationally, it is called a "revolution," and revolutions are unpleasant and expensive. Wherefore, my inborn notion against bonds.

This notion of bond opposition has been vastly stay-lathed and stiffened by observing what those wise, rich, fortunate folk who own them do with government bonds. The bonds pay, say, three per cent. They are not taxed. They are as sure as the sun. That is good to begin with. But better still remains.

The bond-owner starts a national bank on his bonds—suppose $500,000 worth. As a national bank, the government lets him issue money to the $5,000,000 face of his bonds. This money he loans at an excellent high per cent. Thus he gets interest from the government on the bonds, and interest again on the money loaned upon the face of the bonds. This beautiful arrangement, rigged like the old darky's coon-trap, "to git 'em goin' an' comin'," is what the sporting brotherhood calls "a whip-saw."

* * *

The government, having taken the $5,000,000 for the bonds, is often so good as to redeposit the same in the bank. It does if you are a Rockefeller and your bank the National City. Then the bank lets its borrowers have the deposit and turns another honest interest penny in that way.

Others than the government bring in their deposits. The borrowers get them and the bank gets the interest thereon. The law only demands that the bank have on hand twenty-five per cent of its deposits. The balance it can let the stock gamblers have at a towering profit. National banks, as institutions for the convenience of humankind, command our respectful admiration; but as devices for shepherding dollars to the flatulent wallets of their operators, they rouse admiring awe.

Should a market smash come the bank refuses to pay depositors and gives them something it calls a "Clearing-House Certificate." On such an occasion it costs a depositor about four per cent to get his own money. Sometimes he can't get it for that.

All told, by this twist and that turn, our original purchaser of $500,000 worth of bonds takes down full forty per cent on his half million; and all without paying a splinter of tax. Wherefore wise, rich men are ever eager for bond issues. They gobble them up even as the duck gobbles up the succulent tadpole.

Because what forty per cent annual profit is made by our bond-buyer and loan-juggler must needs come finally out of the pockets of the public, and because what with one drain and another, one leak and another, there hasn't, as it stands, been enough coin left in the general pocket to keep the fiends from dancing there, my feeling was ready to bristle at any name of bonds. Thus was it that when I struck the impending bill, which seeks to authorize an issue of $500,000,000 of waterways bonds, it read to me like nothing more nor less than a proposal to authorize the issue of five hundred million blood-suckers.

"No," I said, "it would merely mean $500,000,000 worth of national banks, like the National City, for example. Being started, they could, like the National City, call loans, start panics, invoke stock storms and fatten upon the wrecks that strewed the beach. The money interests have already manœuvered and managed until they've got the general pocket caught, as it were, between the expressive and expressing jaws of a lemon-squeezer and are extracting from it the last financial drop. Let us not add to the lemon-squeezers; let us not add to the aggregate of government bonds."

* * *

Having now said my say of government bonds in general, and my position thereon, let me get to that confession, that plea of guilty. Once upon a time Mr. Choate invited Mr. Lauterbach, both being of the New York bar, to assist him in certain railway litigations. Mr. Lauterbach assisted. Mr. Choate asked for Mr. Lauterbach's bill. The latter is as modest as learned. He put in a charge for $2,500. Mr. Choate gave him a check for $10,000.

The water stood in Mr. Lauterbach's eyes. "Joe," he said, "almost thou persuadeth me to be a Christian."

In reference to waterways bonds, I am in the persuaded class of Mr. Lauterbach. I've been converted from every anti-bond position so far as waterways are involved.

It was Senator La Follette who did it. I've much faith in Mr. La Follette. He is rugged, honest, forward; travels on straight lines. I believe in his integrity, in his brains, in his bias. He is not a Tory. As between the rights of property and the rights of men, he's for the latter. As so I felt and feel him to be politically of my tribe, speaking my language, fighting my foes. This, in effect, on that question of $500,000,000 of waterways bonds, is what Mr. La Follette said: For two years the government, in the money sense, has run behind, spending more than it took in. The deficit for the year ended June 30, 1908, was nearly $60,000,000. The deficit for the year ended June 30, 1909, was about $114,000,000. The deficit for the year ending June 30, 1910, will be $143,000,000. A nation whose expenses overrun its income $315,116,998 in three years has no money, will have no immediate money with which to make improvements—waterways improvements, for example.

And yet waterways we must have.

In a year of great harvests, of great prosperity, the railways can't handle our produce. They haven't the cars. They haven't the tracks. To furnish what tracks and cars are needed would call for $5,000,000,000. Indirectly, no less certainly, that $5,000,000,000 and what interest charges supported it would, in the guise of freight rates, fall upon the public.

The only other chance to handle the products of the country in a year of prosperity, such as we have had and have a right to hope for in the future, lies in the country's waterways. Not in their present shape, however. Our competitors in Europe have us beaten in waterways. And thus, when it comes to price-making in the market, they have us beaten again.

The cost of transportation helps to fix the price. To be upon a market par with our rivals we must be upon a waterways par with them. How much would it cost to bring the latter condition of equality about? Not less than $1,000,000,000, every dime to be spent upon a system of waterways.

It is better publicly to spend $1,000,000,000 on waterways than privately to spend $5,000,000,000 on railways, for "public" and "private" in these connections mean the same things. In either instance the public pays the freight.

* * *

There is the situation as disclosed by that informational candle held by Mr. La Follette. Unless you improve the country's waterways you will lose your share of the trade of the world—a loss manifold the cost of such improvement. With a present deficit of, say, $175,000,000, which by June 30, 1910, will be nearly $316,000,000, it is not necessary to point out that such improvements if made, must be made upon money borrowed upon a bond issue.

There you are. The waterways are an absolute demand of the hour. The deficit is an actual fact of the hour. What is the answer? Bonds! There is no other pathway out. To let our commerce go adrift, so as to avoid the need of waterways, and so avoid the need of bonds, would be like lopping off our feet to avoid the need of shoes.

* * *

Leaving bonds for softer, if more difficult, coils, let me reply in half fashion to the letter of a lady who was so good as to write me the other day. She asked for a brief mention of the more salient graces of the ladies of the White House and Cabinet.

To speak colloquially, the inquiry had rather put me to my stumps. I am no fool who rushes in where angels fear to tread. Also, I am about as capable of describing a woman as describing a star.

However, with a sort of sagacity in flank which comes near being genius, I put the matter before an experienced member of the "Senate Circle," who—being herself a lady—might be expected to speak without prejudice.

This expert gave it as her decision that Mrs. Taft was "stately, learned, charitable, gracious and queenly, had a scholarly father and didn't care for society in the superficial sense." Mixing her metaphors a trifle, my kindly informant, continuing, explained that "Mrs. Taft won her spurs as a hostess when Mr. Taft was solicitor-general, at which time she showed herself an intellectual, keen, clear-headed, tactful woman, whose hobby was music." Later, when Mr. Taft was secretary of war, "Mrs. Taft developed a vital interest in the army."

Going on a step to Mrs. Sherman, my friend of the Senate Circle averred that she is a "lovable, sweet, determined little woman, who has a will of her own."

By the same unerring authority I was told that "Mrs. Knox possesses experience and grace of character;" that "Mrs. MacVeagh is public-spirited, entertains generously, has a beautiful summer home, is a D. A. R., comes of an old New York family and is interested in philanthropy;" that "Mrs. Dickinson is typically Southern, was born of an old and honored Southern family and is all sweetness and affability of character;" that "Mrs. Wickersham is of old Knickerbocker stock;" that "there isn't any Mrs. Hitchcock;" that "Mrs. Meyer is a tall, stately woman, a brilliant hostess, thoroughly vested in all conventionalities of society, preëminently successful in entertaining and has been to Rome and St. Petersburg, where she adopted many little niceties of conduct;" that "Mrs. Ballinger went to the Wesleyan (Massachusetts) University, sang in the church choir, belongs to many women's clubs and is, like Mrs. MacVeagh, a D. A. R.;" that "Mrs. Nagle is little, with the fair complexion and light hair of the blonde. Has soft brown eyes, is sweet, attractive, attended a finishing school at Farmington, traveled in Europe, was a Miss Shepley before she married and is years younger than her husband," and, lastly that "Miss Wilson who sits at the head of her father's table, goes in for music, has studied in Paris and London under Mme. Strauss, Jean de Reszke and Lucer, did quite a deal of solo-singing while abroad and when her father retires from the Cabinet will go into opera."

* * *

The Mikado's government has a department of finance. Each year that department publishes, through the medium of the government printing-office in Tokio, a "Financial and Economic Annual."

The Annual for 1908, being "the eighth," is just off the press. On Page 127 is to be found a disturbing sentence, or sentiment, which has set our State Department to thinking and clouded the wrinkled fronts of our army and navy. Said sentence occurs in the article headed "Development of Our Foreign Trade," and is in these words:

"It will be seen that our foreign trade is, as a whole, making steady progress year by year; and when it is further considered that our late war with China formed the first era, and that with Russia the second, in the history of our foreign trade, our trade would seem to have made international wars the stepping-stones for its rapid development."

This official going to one side by the Mikado to prove that war spells prosperity and bloodshed is a royal road to riches, is thought by our State Department to possess a special meaning. For one matter, it is held to mean us, and that Japan, expecting a brush with us, is preparing the Mongolian mind to welcome it as the sure harbinger of commercial and material progress.

It may be so. It is to be doubted, however, if the result would sustain the Mikado's economic theories. In fighting China and Russia, our slant-eyed optimists were fighting, comparatively, a couple of old cows. Our ebullient Japs have never been face to face with the real thing.

Once a boy thought he would braid a mule's tail. Later when his father was trying to straighten up his features, so that his mother wouldn't have to get acquainted with him afresh, he asked, "Father, will I ever be beautiful again?" "No, my child," said the father, as he delicately pried the bridge of the lad's nose into something like its old-time form, "no, my child, you will never be beautiful, but you will know a danged sight more."

This is an old, old romance, but it has a present bearing. After that coming war with the United States, the Japs will know a deal more, and may even omit thereafter from their "Economic Annuals" those vain statements about "International wars being stepping-stones" to prosperity. The Americans are an unbeatable quantity, and the Japs in any mix-up they may have with us will find that they have but gnawed a file.

Miss Selina Lue and the Soap-Box Babies

By Maria Thompson Daviess

Illustrated by Ruth M. Hallock

CHAPTER II.—The New Soap-Boxer

"Vanity in a man is like a turkey-gobbler a-strutting in November." —*Miss Selina Lue.*

"MISS CYNTHIE, honey, it's a good thing you come down to see me this morning first thing. When you are in town on one of them week-end-and-begins with Miss Evelyn, sweet as she is, I don't rest calm as I might. Seems like, so to speak, I am afraid you will turn over your soap-box or bump your head or swallow a fly or something if you are outen my sight."

"You mean you are sure I will have the strength of mind to refrain from taking in the camel, but are uneasy about my seeing the gnat in time, Miss Selina Lue?" said Miss Cynthia, as she stood smiling before the grocery-door where Miss Selina Lue sat, busily engaged in sorting over a basket of June apples.

"Child, I can't always help but have more respect for a great big, sinful camel than a mean, little, busybody gnat that pops in your mouth and does you a injury before you know he's there. And of the two I choose the camel to swallow, if swallow I must. But, dearie one, I've got too much to think about to watch out for either one, and I reckon them as keeps good and busy is protected from wrong-doing, big or little. Set down, honey-bunch, and tell me what you've been a-doing."

"How are the babies and is Ethel Maud's thumb well again?" said Miss Cynthia as she seated herself in the door for a chat.

"The babies are blooming fine, except Clemmie et something that was strange to her and was sick day before yesterday. I hope it wasn't a cockroach, but I have my suspicions from seeing two legs of one on the floor by her. Ethel Maud's thumb is well, but we like ter had a time with her and a pea in her nose what got stuck up and wouldn't come down no matter how she snorted. But I put a clothes-pin up above it to keep it from going further up and coaxed it down with a hair-pin and a button-hook. It swelled some, but she's all right to-day."

Miss Cynthia laughed merrily at the idea of Ethel Maud's nose, which was a tiny, turned-up dot, supporting a clothes-pin and a pea at the same time, and Miss Selina Lue's chuckle showed that she appreciated the humor of the picture. When Miss Cynthia laughed it provoked a smile from everybody in seeing or hearing distance, and Miss Selina Lue's mirth was ever responsive to the slightest call.

"Miss Cynthie, honey," she said after a few minutes, "I've got a new soap-box baby and I was mighty anxious for a while as to how it would be, but now—"

"Oh, Miss Selina Lue, with all you have to 'do'!—another? Where is it? In a box with the others? I am going back to see it," and Miss Cynthia sprang up with alacrity.

"Oh, no! He stays in the barn with Charity and he won't be home till noon, so set down and let me tell you about it, for I mistrust myself in doing it, though the pictures are beautiful. Of course I oughter be willing to do something fer art's sake, which it looks like is jest his love of this beautiful world put right down fer others to see. And then it's true they ain't another barn about here that's as good as mine to paint in. Anyway, ain't he a stranger within my gates?"

"Miss Selina Lue, what are you talking about? At first it sounded like a baby, then a calf—"

"You'd think it was both by the way it drinks milk and the helplessness of it, but it's a man."

"A man?"

"Yes, a man! And I ain't sure I had oughter done it, fer a strange man might be a mistake fer a single woman like me to have about the house. But he was that persuading and nice, and I couldn't see no good reason not to take him; so what could I do?"

"Miss Selina Lue," said Miss Cynthia, the dawn of an alarmed wonder showing in her big eyes, "you don't mean—you can't mean that you got married while I—"

"Child," said Miss Selina Lue, "don't never ask me that question again! When they buried all of Adoniram Millsaps they could find to bring home from the explosion, the marrying part of me went into the grave with the fragmints and I ain't seen fit to ever dig it up again. Though there is many a good woman as have done that very thing after having been married to they husband fer years before they lost him. But I ain't one to criticize 'em for it, 'cause some seem to think it compliments one good husband to git another —and maybe it do."

"What's your—friend like?" asked Miss Cynthia interestedly.

"He's a kinder forlorn-like young man that paints pictures what are plumb uplifting fer other folks to see. They are jest out and out surprising. When I seen his heart was so sot on the barn to work in—I I jest ain't one to hold out against other folks hankering fer what's mine, and so—lands alive, there he comes now!"

Up from the river over the bluff came the forlorn one, and the two or three minutes he consumed in striding across the lot to the grocery door Miss Cynthia spent in a paralyzed regard of him.

"On his left shoulder was the Blossom, nodding like a flower in the breeze, and on his right arm bobbed Carrots of the flaming hair"

He was tall and broad and had a square chin and laughing, dark eyes. So much she could see, but further details were obscured, for perched on his left shoulder was the Blossom, nodding like a flower in the breeze, and on his right arm bobbed Carrots of the flaming hair. To one knickerbockered leg clung Bennie Dobbs, while the pocket on his other side sagged with the wounded hand of Ethel Maud, who ran to keep up with the procession.

In due time they arrived at the foot of the steps on which stood Miss Cynthia, still hypnotized with surprise, and Miss Selina Lue, anxious to do the honors in the way of an introduction. The swaying of the Blossom and her clutch of his hair had hid Miss Cynthia from the sight of the artist, and his surprised eyes took in the radiant vision in white linen and large rose-garden hat with such a start that there threatened a rain of babies on Miss Selina Lue's devoted head.

"Make you 'quainted with Miss Cynthie, Mr. Alan—not as that's his last name, as is Kent, but we feel so friendly with him now we compliment him with his first. Miss Cynthie, please take Blossom so he can put Carrots in his box; he is most droze off and I am afraid he will drop offen his arm. I've got to git a bucket of lard and some starch fer Mis Dobbs, fer she is in sich a hurry."

Miss Selina Lue's energetic treatment of the situation released Miss Cynthia's motor nerves, and she became once more herself, a very sweet, cool, formal self that acknowledged the introduction with graceful aloofness. This most appropriate attitude toward the strange young man was somewhat modified by having to descend to the step above that upon which he stood in order that she might get possession of Blossom, who was drooping toward her with an enchanted gurgle. As Miss Cynthia raised her arms she also raised her long lashes a fraction, and inadvertently let forth a gleam of mischievous amusement that sent little tongues of flaming embarrassment all over the still dumb Mr. Kent.

It was enough to floor any man to find suddenly that a girl was laughing at him—and such a girl in such a hat! Of course he realized that he looked like a new-style perambulator, but what— The arm that steadied Blossom trembled and she was about to be lowered into the embrace of her waiting friend when with a little squeal and a scornful kick of one pink foot she clutched determinedly a shock of his black hair and absolutely refused to leave her perch. In vain Miss Cynthia wooed with outstretched hands; Blossom held to her coign of vantage.

A mean little feeling of gratification cooled the embarrassment in Mr. Kent's veins, and he said gently, too meekly perhaps: "Try lower down. Carrots will, I am sure, be more amenable to the—the—charm." And he rolled that very sleepy young gentleman into her outstretched arms.

A gleam of vexation was all the return he got for the trick he had played on her, and with a shrug of dismissal for both Blossom and him, Miss Cynthia turned and mounted the steps and made her way to the back of the store.

Rage, yes, actual rage was boiling within her as she laid the heavy baby on the pillow and threw the mosquito-netting over him. The man's calm assumption of an intimate friendship with Miss Selina Lue and the babies and the grocery, and she had almost included herself, was unendurable. And Blossom, who had always been overjoyed at her attentions, refusing to leave him for herself was the last straw.

But, even worse, could the man have meant to insinuate that she was consciously exerting a charm for him over Blossom's shoulder? The mere suspicion of such a thing settled matters! With her head in the air she walked to the front of the store and demanded a paper of tacks, which Miss Selina Lue hastened to wrap up for her, all unmindful of the proximity of the volcano.

"I do wish you didn't have to go, Miss Cynthie, honey. I was jest counting on your setting with us a while to git 'quainted with Mr. Alan. He do talk so interesting about pictures and things we don't know nothing about. You can learn a heap from him. Why, Mr. Dobbs was a-saying jest last night that the things he tells us about are plumb educating. You must come down often to see him." And within a yard of Miss Selina Lue stood the helpless victim of her enthusiasm, Blossom in his arms swaying with sleep. The color of his face and ears and the set of his square jaw told the tale of his embarrassment which flared up into rage surpassing that which burned in the bosom of his adversary as she answered gently, very gently:

"Thank you, Miss Selina Lue; I am sadly in need of instruction in many things." And with her chin in the air and the suspicion of a tilt to her very classic little nose, Miss Cynthia swept out of the door without so much as a glance either to the right or the left.

"Now, ain't she the sweetest thing!" exclaimed Miss Selina Lue as she leaned out of the door and watched the retreating figure with admiring eyes, all unconscious of the snub and the feelings of the snubbed. "She's jest that good and kind and loving that you

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couldn't hardly believe it, could you, Mr. Alan?"

"No, it's hard to believe that anybody could be—like that! Does she happen often in these parts?" answered Mr. Alan in a weak voice.

"Why, she's our Miss Cynthie from up on the hill—you know the big house with the white pillars and the long walks with box scrubs on each side. Her ma, Mis' Jackson Page, owns all this bluff and most of the land 'twixt here and the edge of town, and she is one of the first families, though we all do come here from Adam and Eve. They ain't rich, because the city took a notion to grow out west of the university, and here we are left jest high and dry except for the car-line which runs cars only when it can't git outen it. Mr. Jim Peters is conductor on one of 'êm and Mr. Flarity is motorman on the other, and they don't make but six trips a day. We all are a-hanging on here on 'count of the boat-landing and some of the men a-running on the river. Looks like prosperity's kinder shying at us, fer Mis' Jackson Page can't sell a foot of her land fer a decent price, and she's jest downright land-poor, as the saying is."

"Is Mr. Flarity the Flarity who is the owner of Carrots and his brother?" asked Mr. Alan. He had deposited Blossom on the counter and she had immediately curled up in a little bunch and plunged into the depths of sleep. He seated himself on the steps as he questioned Miss Selina Lue about the parental history of the twins—anything to get his mind off the scornful lady of the Hill Mansion and give his ears a chance to cool down.

"Yes, and he is the most misfortunate man I ever did know about some things. His wife have had twins twice and a tapeworm and now she's gone to the hospital to stay three months to get cured of it. The poor thing wouldn't go until I promised to invite the babies fer a visit while she were away. All the others are dead is what makes her nervous about these." Miss Selina Lue was so busy dusting the row of bluing-bottles that she failed to see the effect of her naïve revelations of the domestic situation in the Flarity household. "Flarity's a mothering sort of a man and he comes by and gits the twins after eight o'clock and takes them home fer the night and leaves them on the back steps with the cat when he has to go on the very early morning runs."

"Does Miss Clemmie spend the night?"

"Oh, no——Mis' Simmons don't bring her over till after ten. She takes the ten-forty car in to where she washes dishes fer the Women's Exchange lunch. She has to stay until almost sundown, and comes home dead-beat. I don't want to say anything hard of Mr. Simmons, but it do seem he uses his family keerless like on a good salary."

"What," inquired Mr. Alan from the doorstep, "does the brute do?"

"Well, I wouldn't skeercely call him a brute, I think," said Miss Selina Lue, as she shook out her duster and began on the shelf of canned tongue. "He runs a laundry-wagon and he says it is a advertisement fer the house fer him to be a stylish dresser, but I can't see why the house has to have his pants pressed every morning and have him wear purple socks and tan shoes when his wife is all drug out with trying to piece along and keep going. Sometimes I think it must be vanity in Mr. Simmons, and vanity in a man is like a turkey-gobbler a-strutting in November."

"What about vanity in the ladies, Miss Selina Lue? You don't approve of that."

"Now, Mr. Alan, you're mad at what I said about the men and are trying to git even with me." And Miss Selina Lue smiled over her shoulder at him. Miss Selina Lue's smile was like a broad beam of sunshine on a summer morning. "Don't you know the Lord wouldn't have gave women folks shiny curls, cheeks pink like a peach, figgers plumb beautiful and eyes blue as the wild vi'lets on the creek, like Miss Cynthie there, lessen He intended to excuse them some fer being proud?"

"I don't believe He would quite stand for that amount of pride and grudge Mr. Simmons the purple socks," murmured Mr. Alan over his cigar in careful sotto voce, and immediately steered Miss Selina Lue off the disturbing topic.

"Anything interesting in the family histories of the other two soap-boxers, Miss Selina Lue? It seems the thing on the bluff to know all about your neighbors, and my intimacy with your kiddies grows apace." There was a winning wholesomeness in Mr. Alan's voice that struck a kindred note in the soul of Miss Selina Lue, and she reveled in the unbosoming of herself to him. His dark eyes shone with interest and his straight mouth had an unexpected quirk in the left corner, indicative of a sense of humor.

"Well, Pattie Tyne, the little one that can't hardly set up good yet, is jest so to speak a transient, as her ma have gone on a visit to her sister over to Union City. After she had got the other five ready to go, there jest wasn't nothing to fix Pattie up in fitten for a visit, so she left her with me. I wash the blue gingham out of nights and piece out with a dress of Blossom's when it's needed bad. Looks like Mis' Tyne dreads the sewing-machine and a bolt of caliker like they was typhoid smallpox."

"And last, but not least, tell me the tale of Blossom, the lady of my heart, the only person who really appreciates me for my true worth, which is peppermint candy in limited quantities and a shoulder cushioned in brawn and exalted in height."

"Mr. Alan," said Miss Selina Lue as she sat down on the step by him and, picking up the little white calico bonnet he had let drop off the nodding head of the lady in question, began to plait the ruffle with caressing fingers, "they ain't many people I would tell the story of her to. One way or another, I have shet up every soul on the bluff as has asked me. Of course Miss Cynthie knows, fer people can't help talking pitifulness to her, but the rest jest found her here.

"It was a year ago last Christmas it happened to me and Charity to find her. About dark when I was busy to death doing up supper truck—as you see, that's my busiest time of day—a girl come in here I never saw before and she looked wild and white. She carried a bundle in her arms, but I never suspicioned anything, so I jest sold her a box of crackers and she went on out. Then I plumb forgot her, as I oughten to have done, for she wasn't happy-seeming, and sich as she oughter be on my mind."

"Miss Selina Lue, please forgive me for asking. Perhaps I ought not to know." And Mr. Alan caught one string of the limp little bonnet and curled it tenderly around his finger. "I really do—love the little mite, if that's any excuse for my—"

"Mr. Alan, that's a excuse for everything in the world and heaven above! When you give it, you've done gave the password to Kingdom Come and I ain't a-holding back the confidence of my heart from one as can speak it. It ain't the baby's fault no way that I found her laid in Charity's stall, what is like a manger we have both heard on many a time. Charity had a new calf then, what I am in the habit of turning in with they mother on cold nights if the milk do run short in the morning, and that's what saved the child's life. Charity had crowded her spotted baby in a corner of the stall to keep it warm and had hung her head down over Blossom and her own baby in such a manner as to hover them both—and there I found her. I wisht I knowed where that wild-eyed girl-mother is a-wandering, lonesome and unhappy."

"She chose the place to leave the baby—wisely," said Mr. Alan.

"Yes, you can always put dependence in the sense and good feelings of a cow," answered Miss Selina Lue with sweet unconsciousness. "Did you ever think what a noble life they lead—always a-giving for other people who don't show no more appreciation than a bucket of bran and a little water? If oxes and asses was there, I want to think a cow helped to watch over Him that night. It makes me feel easier about Mary; fer cows, they knows things same as humans."

[TO BE CONTINUED]

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Our Girls at Home

Fun for Thanksgiving

THANKSGIVING will soon be here! About two weeks more and then mother's old-fashioned doughnuts will be sizzling and frying in the pan, sending forth that delicious and appetizing flavor so suggestive of Thanksgiving and the winter holidays. And the pumpkin and cranberry and mince-meat pies! —why, the pantry shelves will be piled high with all sorts of dainties—just like the goodies our grandmothers and our great-grandmothers and great-great-grandmothers used to make before us. Then there's the cider and the apples and the nuts and the candy! Oh, what a glorious time of the year is Thanksgiving!

Vegetable Chinaman Made of Crêpe Paper

I suppose there are many of you girls who are taxing your brains for ideas for entertaining on Thanksgiving. It is really one of the best times of the whole year to give a party, for with the corn-stalks and pumpkins and cranberries the decorations can be made so attractive. Corn-stalks are at every country girl's command and they give such a charming touch to a room. Place a large bunch of these corn-stalks on either side of the entrance to the dining-room and also at the entrance to the room in which the party is to be held. Try to decorate the dining-room as gaily as possible. Festoons of nuts or strings of cranberries make extremely pretty wall decorations.

Branches of large, natural-looking oranges made of cotton covered with orange crêpe paper are also effective. One branch about a yard in length may be purchased for thirty-five cents or less. The vines are nothing but heavy wire padded and covered with green crêpe paper with the oranges and leaves depending.

If you want to have a pop-corn party, in which the New York girls simply delight, string a lot of pop-corn and drape it up at the doorway to give the effect of a portière. Pop-corn chains around the girls' necks also carry out the scheme most beautifully, while the men may have watch-chains of pop-corn.

Hollow out a few pumpkins and fill them with large ferns, or a flower-pot filled with any kind of a growing plant. Be sure to have a big, fat pumpkin in the center of the dining-table and fill it with all kinds of fruit—apples, grapes bananas, oranges, with a few autumn leaves, which have been pressed and waxed, tucked in among the mellow fruit.

The border of corn crêpe paper, pictured at the bottom of the page, makes a very attractive and appropriate table-cover. Ears of corn and autumn leaves form the design for this border, and the nicest part of it all is that the paper is only fifteen cents a large roll. It may be draped around the edge of the table, and the cover for the top may be of plain white crêpe.

Novel Table Decoration

Have yellow ribbon suspended from the chandelier and reaching to each one's place. At the end of each ribbon attach a little favor or the name-card. The cute vegetable Chinaman, illustrated on this page, may be pasted on the name-card and it makes a very novel little souvenir for the guests. His legs and arms are made of paper carrots, while his dress is supposed to be a crisp, fresh lettuce-leaf. His head is a tiny yellow pumpkin made of crêpe paper, and altogether he is a very unusual and novel little Chinaman. He makes a cunning booby prize, too. The carrot ice-cream cup, also pictured on this page, will add greatly to the decorations of the table. It may be used for the ice-cream or to hold candy, nuts or stuffed dates. The carrots which form the legs of this unique ice-cream cup are made of yellow crêpe paper, or fresh carrots will serve the purpose as well, provided they are of uniform size. The cup is of cardboard covered inside and out with green crêpe paper, but if ice-cream is to be served, slip in an extra white paper cup to hold it. These can be purchased for fifteen cents a dozen. The carrots are fastened to the cup by means of green baby ribbon.

Be sure to have the room where the party is held as appropriately decorated as the dining-room. Decorate the pictures with garlands of orange crêpe paper. Have a few "pumpkin" jardinières filled with ferns, and from the chandelier suspend a bunch of red corn by yellow ribbons. This will cause a great deal of merriment and fun, as it carries out, in a way, the mistletoe idea of Yule-tide.

Play Old-Fashioned Games

They are really most appropriate for a Thanksgiving party and are always sure to be enjoyed by the guests. Bob for apples, or tie an apple on a string and see if you can get a bite out of it as it bobs back and forth under the chandelier. Puss in the corner is another old game, and then you might also play popping chestnuts. Provide each guest with three chestnuts. The girls must name each of their chestnuts for a man of their acquaintance, and the men must name each of theirs for a girl of their acquaintance. Let your guests one by one, place their three chestnuts on the stove. Then the fun begins. The one that pops first signifies that you will marry the person for whom it was named. Popping fun is also jolly fun. Invite the men and girls into the dining-room where there is a big open fire and tell the girls that this time they will have to do the "popping." Sing some of the old-time songs and tell ghost stories and the time will not lag, I assure you.

While the guests are making merry popping corn and telling stories, pass around a dish of "old chestnuts." These "old" chestnuts are prepared by putting old jokes in the chestnut-shells and then sticking them together. You have no idea what a lot of fun it causes to have the guests read their jokes aloud.

E. M. F.

Conundrums

TRY these conundrums Thanksgiving evening as you are sitting around the open fire cracking nuts and telling funny stories. A conundrum or two is generally enjoyed by old and young alike:

Why is a crow? Because (caws).

What black thing enlightens the world? Ink.

When is a man duplicated? When he is beside himself.

What are the most difficult ships to conquer? Hardships.

Why is the letter "w" like scandal? Because it makes ill will.

What is the best way to keep a man's love? Not to return it.

Why was the dumb-waiter returned? Because it didn't answer.

What is that which is invisible, yet never out of sight? The letter "s."

Why is a fisherman's the most lucrative employment? It is all "net" profit.

Why is a hen so valuable on the farm? For every grain she takes she gives a peck.

Why does the sailor know there is a man in the moon? Because he has been to sea (see).

Why does a dressmaker never lose her hooks? Because she has an "eye" to each of them.

How did Jonah feel when swallowed by a whale? He was down in the mouth and went to blubber.

Why is it almost certain that Shakespeare was a broker? Because no man has furnished so many stock quotations.

If you saw a house on fire, what three celebrated authors would you feel disposed at once to name? Dickens, Howitt, Burns.

What is the difference between a hill and a pill? One is hard to get up and the other is hard to get down.

What is the difference between photographing and the whooping-cough? One makes facsimilies, and the other makes sick families.

Be Enthusiastic, Girls!

NOT very long ago I called on a charm-little lady who had just celebrated her seventieth birthday. She was wonderfully alert and active and thoroughly interested in all that was happening around her. In a moment of confidence I asked her to tell me the secret that had kept her cheeks pink and her eyes bright and her mind brilliant through all the years.

"Certainly, my dear, I will tell you. It is all contained in one word—enthusiasm." I must have looked astonished, because she went on to explain. "Years and years ago I was a lack-luster sort of girl, good and sweet and all the things that the copy-book maxims tell us to be, but I felt that in some way I was a failure. I lacked something, and lacked it badly, so I set out to discover what it was. One day it came to me like a flash. A friend was giving me a thrilling account of something that had happened to her, and I was listening very politely but calmly when she broke off in exasperation, and said, 'Louise, you haven't a bit of enthusiasm, have you?' Then it occurred to me that I *was* extremely unenthusiastic and that I had been looking at life through smoked glasses. Let me tell you, my dear, that jolt did me a world of good. No one has since accused me of lack of enthusiasm, for I have been cultivating it all my life." I looked at her sweet, animated face and knew this was the secret of her charm.

Be enthusiastic, girls. Go at things with a vim and put zest and life into all that you do. The apathetic girl, the girl who says, "Oh, dear, I can't help it!"

Yellow and Green Crêpe Paper Are Used to Make This Unique Carrot Ice-Cream Cup

when things go wrong, is the girl who drops steadily behind in the march of life—for we cannot stand still, remember that, girls! We must either go forward or drop out of the procession.

A. V. B.

Some Questions Answered

FOLLOWING are a few questions that the editor of the girls' corner has recently received. We are printing them, together with the answers, for the benefit of other girls who may care to know the same things. Here they are:

In writing to a young boy friend, how shall I address him?

You may address him "My dear Charles" or, if you know him very slightly, "My dear Mr. Wright." Conclude by saying, "Sincerely yours."

I am in love with a man, but we are of opposite creeds. Do you think we can be happy together?

Yes, there is a possibility. But usually there must be a compromise—one or the other must yield. I cannot advise one way or the other, only I will say this, do not act impulsively; consider the matter from all standpoints before deciding.

Is it proper for a young lady to ask a man friend to correspond with her, or invite him to call?

It is the man's prerogative. However, if the man is a stranger in town, the girl's father, mother or brother may invite him to the home.

Corn Crêpe Paper, Suitable for Decorating a Table at a Party or Church Supper

Talks on Vocal Culture

Part II.

By Benjamin Schwering

EDITOR'S NOTE—The girl who is anxious to sing cannot afford to miss one of these instructive articles on vocal culture. They will run monthly in this department.

Tone-Placing and Voice-Building

IN THIS article I will take up the vowel sounds of long Italian A, pronounced "Ah," and long "O," pronounced as in old. The study of the different vowel sounds in their application to the voice is called: "Tone-Placing and Voice-Building," and is really one of the most important things of the vocal art.

However, before telling how to produce these vowel sounds, I must say that to produce tone we must first have the proper mold to form it in. If you wished to make a bullet or candle, you would first get the proper mold and then pour the material into this mold, in order to get the finished product. Well, exactly the same thing is true in singing. For each vowel sound a different mold must be formed, and the proper position of mouth, lips and tongue, constitute this.

One of the most important things in singing is to hold the mouth open the proper distance for each vowel. Therefore the first thing to do in learning to sing "Ah" and "O" is to get a small peg one inch long. While you are practising, this peg must be placed between the teeth, thus keeping your mouth open one inch, which is the proper distance for "Ah" and "O." The student must continue practising this way until it becomes second nature to open the mouth just that far. The jaw is dropped down farthest for these two vowels, but must never be dropped down so far as to require force to keep it in position, or that it becomes stiff. One of the greatest things to learn in singing is to produce the tone in a free and relaxed manner, and to hold the lips, tongue and mouth in just as easy a position as possible. Never under any circumstances must the throat and the parts above it feel cramped stiff or tight, for that obstructs the voice and utterly ruins good singing. Every time the student is practising he must strive to sing each note in a perfectly free, easy manner, allowing the breath to soar into the cavities of the mouth and head without the throat being cramped or stiff. Do not think that you can get this all at once. It is a muscular action that must be given time to develop, which it will do if you strive hard to get it.

To produce "Ah" and "O" place peg between teeth as described above, draw the lips up and away from the teeth so that they show. Do not draw the lips across the teeth, but push them away from them. The tongue must lie flat in the mouth, with the tip lightly touching the gums of the lower front teeth. Now speak the vowel "Ah" and direct the sound by force of will power on the back of the roof of the mouth. This is the correct way to sing "Ah" and the one that must be used in practising. When singing, the sides of the tongue must be slightly raised, and through the middle of it should be a shallow channel or furrow. This is necessary in order that the tone may resonate properly against the roof of the mouth. When this furrow makes its appearance the tone is correct. You must not expect to get this action of the tongue at once. It is also a muscular development which will develop in a few days if you practice faithfully. Do not try to make this furrow when not singing, as it only presents itself when singing.

Now strike middle C on the piano or organ, and sing "Ah" as described above, holding the tone four counts. Then take a breath and sing the next note in the same manner as high as D, fourth line, treble staff. Sing down the scale in the same way. The vowel "O" is sung like "Ah" with the following exceptions:

The lips form more the position of a circle and must not show the teeth as in "Ah." Also push the lips farther out. The tongue must remain as in "Ah," but the tone must be directed upon the front part of the roof of the mouth. Now sing "O" beginning with middle C, and so on as you did "Ah." Practise this way at least fifteen minutes each day.

Do not get discouraged if you cannot get the proper positions at once, simply do your best and keep pegging away, and you will get there. Be sure to get the proper direction of the tone for the different vowels as that is very important, and sing them in a free, brilliant, easy manner, with the sensation as though the mouth was filled with tone, and as if the chest and throat were expanded.

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Agents: $103.50 per month selling these wonderful Scissors. V. C. Glebner, Columbus, O., sold 22 pairs in 3 hours, made $13; you can do it, we show how. Free Outfits. Thomas Mfg. Co. 1546 Wayne St. Dayton, Ohio

Thanksgiving Recipes

Holiday Chickens—Dress two chickens as for roasting and rub them all over with a little salt and pepper. Make a stuffing with whole oysters, bread-crumbs, salt and pepper and a very little minced onion. Fill the chickens with it and sew up the ends securely. Boil until tender in just enough water to cover, adding a small carrot cut in slices, a stalk of celery and a sliced onion. When tender take up, let dry off a little, then rub all over with soft butter and a little salt if needed, dust lightly with very fine dry bread-crumbs, and set in a hot oven until nicely browned. With a little flour thicken some of the broth in which the chickens were cooked, add a little cream, a generous lump of butter, some seasoning if needed and a few whole oysters. Serve as soon as the edges of the oysters begin to curl. The remainder of the broth will make a delicate and delicious soup.

Nut-Kisses—Whip the whites of four eggs to a stiff snow, stir into them half a pound of pulverized sugar and one cupful of blanched and pounded almonds or walnut-meats. About an inch apart drop in spoonfuls on well-buttered paper. Lay the paper on a board one half inch thick, and set in a slow oven until the kisses are a light cream color. These nut-kisses are very dainty and are just the thing to serve with tea on Thanksgiving.

Lemon-Tartlets—Line individual tins with plain paste; fill with lemon filling and bake. Cool slightly, cover with meringue and return to the oven to bake the meringue.

Squash-Soup—Press one cupful of boiled squash through a sieve. Stir into it one teaspoonful each of salt and sugar, a dash of pepper, a pinch of mace and a little minced celery or celery salt. Place on the stove and stir until the squash is well heated through; then add one quart of hot milk, to which a pinch of soda has been added. Add two tablespoonfuls of butter and one of flour, and stir until the soup thickens. Serve at once. This delicious squash-soup is appropriate to serve at Thanksgiving dinner. If desired, croutons may be added.

Beet-Salad—Cook large beets in boiling water until perfectly tender. Throw them into cold water and slip off their skins. Cut a slice off the larger end to make them stand level, and with a sharp, narrow-bladed knife cut out the center to make a neat cup-shaped receptacle. Put the little cups in spiced vinegar until wanted to use. Chop the portion of the beets removed into dice, mix it with an equal quantity of diced celery and moisten with mayonnaise or a boiled dressing. This makes a delicious filling for the beet cups. Another very pleasing filling is with canned French peas and English-walnut meats mixed with a rich boiled dressing; or chicken and celery in equal quantities may be used.

Cranberry-Pie—One and one half cupfuls of cranberries, one half cupful of water, three fourths of a cupful of sugar. Put ingredients in saucepan in order given and cook ten minutes; cool, and bake in one crust, with a rim and strips across the top.

Nut Salad—Chop enough celery into half-inch lengths to make one pint, then add one pint of chopped apples and one half pint of hickory-nut meats. Season with salt and pepper, let stand one hour, and shortly before serving cover with mayonnaise dressing. Stir well.

Sweet Potatoes, Southern Style—Season mashed boiled sweet potatoes with butter, salt and pepper; moisten with rich milk and beat vigorously. Put in a buttered baking-dish, leaving a rough surface. Pour over this a syrup made by boiling two tablespoonfuls of molasses and one teaspoonful of butter three minutes. Bake until light brown.

Old-Fashioned Cranberry-Sauce—Pick over and wash sufficient cranberries to make one quart, and cook them in two cupfuls of water until the berries begin to pop. Then stir in two cupfuls of sugar and let boil five or six minutes longer. If it is preferred to keep the cranberries unbroken bring two cupfuls each of sugar and water to boiling-point and add one quart of the berries. Let them stand, covered, on the back of the range for five minutes, then bring quickly to a boil and let them cook for five minutes after boiling begins.

Oyster and Beef Olives—Have some round steak cut rather thin and divide it into nice-sized pieces for serving. Slightly chop a sufficient quantity of oysters, mix with one fourth the amount of dry, fine bread-crumbs, salt and pepper to taste and a little pickled cucumber chopped fine. Moisten slightly with melted butter and spread over the slices of beef, roll them up tightly and fasten securely with string. Put them in a baking-tin with plenty of butter and bake in a moderately hot oven until nicely browned, basting every few minutes with melted butter. Serve with creamed or mashed potatoes.

Chicken-Pudding—Cut up a young chicken into good-sized pieces, put into a saucepan with enough water to cover, boil until tender. Season with salt, pepper and celery salt. Place the chicken in a well-buttered pudding-dish, add two tablespoonfuls of minced parsley, two hard-boiled eggs sliced, a teaspoonful of onion-juice and enough chicken-broth to moisten. Pour over the following batter: Two eggs beaten light and mixed with one cupful of milk, pinch of salt, tablespoonful of melted butter, a teaspoonful of baking-powder mixed with two cupfuls of sifted flour. Bake one hour.

French-Fried Potatoes—Wash and pare seven medium-sized potatoes, cut in halves lengthwise, then cut each half in quarters lengthwise, and soak one hour in cold water to cover. Take from the water and dry with clean towels. Have at hand a kettle of hot lard at the right temperature for cooking uncooked foods. Otherwise the potatoes will either absorb fat or become too brown before thoroughly cooked. This temperature is: When the fat begins to smoke drop in an inch cube of bread cut from the soft part of the loaf, and if in one minute the bread is a golden brown, the lard is at the right temperature for the frying of the potatoes. Put in one third of the potatoes and keep in motion by using a skimmer until very delicately browned and cooked throughout. Remove with a skimmer to a pan lined with brown paper. Cook and drain remaining potatoes in the same way, then return all to the hot fat for a final browning and reheating. Drain again on brown paper and sprinkle with salt.

Nut-Cake—Cream one cupful of butter with two cupfuls of sugar; stir in the yolks of four well-beaten eggs, one cupful of cold water, one half teaspoonful of cinnamon and three cupfuls of flour (in which two teaspoonfuls of baking-powder have been sifted) alternately with the whites of the egg beaten stiff. Have ready two cupfuls of nut-kernels—white or English walnuts—well dredged with flour, and stir these into the cake. Bake in a loaf in a steady oven. When cold, ice and decorate with nut-kernels.

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Quaker Oats is packed in regular size packages and large size family packages. 7

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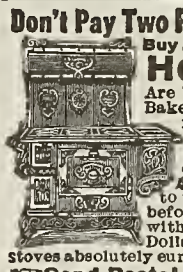

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Change of Food Brought Success and Happiness

An ambitious but delicate girl, after failing to go through school on account of nervousness and hysteria, found in Grape-Nuts the only thing that seemed to build her up and furnish her the peace of health.

"From infancy," she says, "I have not been strong. Being ambitious to learn at any cost I finally got to the High School but soon had to abandon my studies on account of nervous prostration and hysteria.

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"This wretched condition continued until I was twenty-five, when I became interested in the letters of those who had cases like mine and who were being cured by eating Grape-Nuts.

"I had little faith, but procured a box and after the first dish I experienced a peculiar satisfied feeling that I had never gained from any ordinary food. I slept and rested better that night and in a few days began to grow stronger.

"I had a new feeling of peace and restfulness. In a few weeks, to my great joy, the headaches and nervousness left me and life became bright and hopeful. I resumed my studies and later taught ten months with ease—of course using Grape-Nuts every day. It is now four years since I began to use Grape-Nuts. I am the mistress of a happy home and the old weakness has never returned."

Read the little book, "The Road to Wellville," in pkgs. "There's a Reason."

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

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The celebrated Hammond Atlas has been able to get complete accounts of the exploits of the two now famous explorers. This intensely interesting story is in the early 1910 edition of the Hammond Handy Atlas just off the press.

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TO OUR READERS

By our special arrangements you can obtain this famous Hammond's Handy Atlas of the World without one cent of cost, if you act at once. We have secured for our readers the early 1910 edition of this great Atlas, which is **just off the press**, revised up to date. This volume contains 150 pages, 6 by 8 inches in size, and is bound in substantial and attractive red cloth.

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You will enjoy the Cook-Peary accounts. The story of Captain Bartlett of the Bradley gives an idea of how fascinating are the details.

"As we were running a little light, I came on deck and said to Bartlett:—'Captain, get all the men ready and send all the natives aboard ashore. Prepare to unload as soon as possible, for we are to put Dr. Cook and his supplies ashore for the winter.'

"'Is this a Polar expedition?' he asked.

"'It is,' I answered.

"'I knew it! I knew it!' he exclaimed. 'Never was there a ship fitted out as this one is which was not intended for the Pole. Expect me to stay all winter!'

"'Not if we can help it,' said I 'we wouldn't stay here myself. It is not necessary to lay here on account of Dr. Cook. We have a house on board for him.'

"'Glad to hear you say that,' was the Captain's answer. 'I wouldn't stay here for anybody on earth.'"

HOW TO GET IT

Send us two subscriptions to FARM AND FIRESIDE at 35 cents each, and we will send you the Handy Atlas, free of charge, with postage prepaid, by FARM AND FIRESIDE. The subscriptions may be either new or renewal. One of the subscriptions may be your own. If you send two 50-cent subscriptions, they will each get FARM AND FIRESIDE for two years.

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This Offer Will Be Withdrawn. Act at Once

Smartest Madison Square Patterns

No. 1347—Tailored Shirt-Waist With Tab Front

Pattern cut for 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four and one fourth yards of twenty-four-inch material, or two and three fourths yards of thirty-six-inch material

THE wine shades still keep in the lead among the fashion colors. Mulberry and vintage purple are much liked. All the many tints of brown are good style, caramel and burnt leather are two new shades. Dark blue and dark green are reliable and stylish colors.

No. 747—Housewife's Apron

Pattern cut for 32, 36 and 40 inch bust measures—small, medium and large

No. 1241—Rag Doll, Dress and Sunbonnet

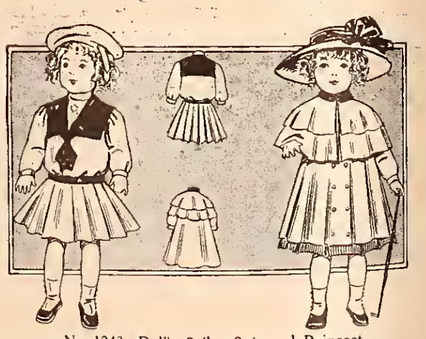
Pattern cut in one size for doll 22 inches high. Quantity of material required for this doll, three fourths of a yard of thirty-six-inch material. Quantity of material required for dress, one yard of thirty-six-inch material, with one fourth of a yard of velvet and one eighth of a yard of lace. Quantity of material required for the sunbonnet, one fourth of a yard of material

OF COURSE, if you are one of the big, constantly-growing FARM AND FIRESIDE family you know all about the Madison Square patterns. But if you are not, then Miss Gould, who has charge of the fashion department of FARM AND FIRESIDE, wants to specially call your attention to these patterns.

She wants to tell you that the woman who is trying for the first time to make her own clothes need not get a bit nervous over it if she uses the Madison Square patterns. In the first place, the pattern-pieces are particularly easy to put together because each piece is lettered and notched so that it is impossible to mistake one for another. Then the method of perforation which we use is the most perfect known, which is a big help. In addition to these things, the very fullest directions are given with each pattern. In fact, when you buy the pattern, which costs but ten cents, you get a clear and concise dressmaking lesson printed on the pattern envelope, as well as the picture of the finished garment to use as a guide.

No. 1447—Nightgown With Round Yoke—Perforated for Sacque

Pattern cut for 32, 36 and 40 inch bust measures—small, medium and large. Quantity of material required for medium size, or 36 inch bust, four and three fourths yards of thirty-six-inch material, with one fourth of a yard all-over embroidery for the yoke



No. 1243—Doll's Sailor Suit and Raincoat

Pattern cut in one size for doll 22 inches high. Quantity of material required for dress, one yard of thirty-six-inch material, with one fourth of a yard of contrasting material for trimming; for the raincoat, one and one eighth yards of thirty-six-inch material

DESIGNS for dresses consisting of waist and skirt are very much in demand this season, even though the one-piece dress keeps right on being the vogue. For these dresses, such materials as serge, cheviot, Panama cloth and broadcloth are all much used.

The sailor collar is a very fashionable waist trimming just at present. It may be of velvet, cloth in a slightly contrasting color to the gown, moire silk or a mass of braiding. Many other waists show becoming little shallow yokes which are made of white net, white lace or embroidered batiste.

In planning your new dress you will find the skirt illustrated in pattern No. 1408, shown on this page, a very good model to copy. It is cut in four gores, having circular side gores and a plaited panel, back and front. The panels are made with inverted plaits in the center and a narrow box-plait at each side. The skirt fastens at the left side of the front panel.

A separate long coat to wear with the costume shown in patterns Nos. 1407 and 1408 is a very necessary garment. It need not necessarily be of the same material as the dress, but it should harmonize with it in color.

For instance, if the dress is of dark blue cloth, the coat could be of a wool mixture showing dark blue in combination with another color, but having the blue the most predominant.

No. 1446—Room-Gown With Side Closing

Pattern cut for 32, 36 and 40 inch bust measures—small, medium and large. Quantity of material required for medium size, or 36 inch bust measure, ten and one half yards of twenty-seven-inch material, or seven and one half yards of thirty-six-inch material

No. 700—Closed Drawers With Yoke

Pattern cut for 22, 24 and 26 inch waist measures. Quantity of material required for medium size, or 24 inch waist, one and one half yards of thirty-six-inch material

No. 1407—Waist With Sailor Collar

Pattern cut for 32, 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and one half yards of twenty-two-inch material, or two and one fourth yards of thirty-six-inch material, with three fourths of a yard of lace and five eighths of a yard of velvet

No. 1408—Skirt With Plaited Panels

Pattern cut for 22, 24, 26, 28 and 30 inch waist measures. Length of skirt all around, 42 inches. Quantity of material required for medium size, or 26 inch waist, seven and one half yards of twenty-two-inch material, or five and one half yards of thirty-six-inch material. This very new skirt is cut in four gores, having circular side gores and a plaited panel, back and front

No. 1445—Tailored Shirt-Waist With Yoke Back

Pattern cut for 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 38 inch bust, four yards of twenty-four-inch, or three yards of thirty-six-inch material

IF you happen to need a pretty buckle for one of your best dresses, here is a suggestion in regard to making it. Use for your foundation a piece of buckram and cut the buckle after any old buckle you may have. Cover the foundation with a piece of material. You can use the same material as your dress or have it of silk, velvet or canvas. Before covering the buckle with the material, embroider it. Simple little flowers worked in ribbon embroidery make a pretty design with an imitation jewel or a big bead in pale blue, pink or yellow for the center. If you feel any doubt about your ability to make the ribbon embroidery flowers, use little circles of French dots with a jewel in the center.

No. 1444—Child's Night-Drawers

Pattern cut for 2, 4, 6 and 8 year sizes. Quantity of material required for medium size, or 6 years, four and three eighths yards of twenty-seven-inch material, or three yards of thirty-six-inch material

No. 1242—Doll's Red Riding Hood Set

Pattern cut in one size for doll 22 inches high. Quantity of material required for the dress, three fourths of a yard of thirty-six-inch material; for the apron, three eighths of a yard of thirty-six-inch material, and for cape and hood, five eighths of a yard of thirty-six-inch material

THE NEW AUTUMN STYLE BOOK

Are you accustomed to see the style book of the Madison Square Patterns? If you are, of course you realize its value to you in making your own clothes. The new style book, better and bigger and more attractive in every way, is now ready for distribution. Be sure to send your order for it. Inclose ten cents in stamps, and address your letter to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City.

This style book will make you familiar with all that is newest in the fall and winter fashions. It will tell you all about clothes for the little folks as well as the grown-ups. It costs a few cents more than the one we last issued, but it is well worth it.

Here is our latest liberal offer: We will give one Madison Square Pattern for sending two yearly subscriptions to FARM AND FIRESIDE at the regular price of thirty-five cents each. Your own subscription may be one of the two. When ordering, write your name and address distinctly. We will send FARM AND FIRESIDE one year, new or renewal, and any one pattern for only forty cents.

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MADISON SQUARE PATTERNS

For every design illustrated on this page we will furnish a pattern for ten cents. The Madison Square Patterns are very simple to use. Full descriptions and directions come with the pattern, as to the number of yards of material required and how to cut, fit and put the garment together. The pattern envelope shows a picture of the garment. All of the pieces of the pattern are lettered, so that even if the collar in the pattern should look like the cuff, there is no possible way of mistaking one for the other, for each bears its own letter identifying it.

Send orders to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City. When ordering, be sure to comply with the following directions: For ladies' waists, give bust measure in inches; for skirt, give waist measure in inches; for misses and children, give age. Be sure to mention the number of the pattern you desire. Satisfaction guaranteed.

A distinctive feature of the Madison Square Patterns is the originality of their designs. They are always up to the moment in style and yet they are never extreme.

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Just the Sort of Clothes You Are Looking For

THAT is what you will find cleverly illustrated in the thirty-two-page Catalogue of Madison Square Patterns.

Clothes for every occasion and always wearable clothes.

There are French designs to be sure, because the Catalogue is a veritable style book. But every French design has been robbed of all its exaggeration. It has been adapted, in fact, to the needs of the practical American woman who makes her own clothes.

The Catalogue tells you what to wear and in its illustrations shows you how to wear it. A glance through its pages is like a walk through one of the largest and best equipped dry-goods stores of our big cities, as far as variety of fashions is concerned.

Though the Madison Square Patterns have a distinctive style of their own, yet they are extremely simple to use. The beginner can easily see how the pieces are put together, because each piece is lettered and notched so that it is impossible to make a mistake. Then the method of perforation used is the most perfect known and the grade is faultless.

If you order a waist pattern and ask for 36-inch bust measure, that is exactly what you get. The measurements of your waist pattern are correct to start with, which is a big element in securing success for the finished waist.

Don't fail to order this new pattern Catalogue if you use it for nothing more than a fashion reference book. However, if you once see the designs you are sure to want the patterns so that you can make clothes just like them for your own self.

We will send the Catalogue to your address if you inclose ten cents in stamps with your order. Address

Pattern Department
FARM AND FIRESIDE
11 East 24th Street
New York City

OUR YOUNG FOLKS' DEPARTMENT

How Laddie Paid His Debt

By Mary Minor Lewis

LITTLE Betsy Baker sat on the porch-steps of her father's house and watched the people passing up and down the village street. It was the 20th of June and her seventh birthday. She held in her arms a big doll which was her mother's birthday present to her; and in her apron pocket was a cunning little purse with several compartments which was her father's gift. Now and then Betsy took it out and shook it, and something inside made a lovely, jingling sound.

Betsy's parents were poor and so the little girl had few toys and seldom any money of her own to spend; therefore, a new curly-haired doll and a purse with fifty cents in it made this seventh birthday of hers a very happy and wonderful occasion.

Presently the rural postman came in sight driving his gray horse hitched to the funny little blue cart. He was on his way to deliver the daily mail to the people out in the country.

The postman was a great friend of Betsy's. He was an old man with twinkling blue eyes and a cheery voice. He came by at this hour every day and Betsy was almost always on the steps watching for him. When there were no letters he would wave his hand to her, but when there was mail for the house he would come into the yard and give the letters into her own hands. He was always jolly. To-day, as he came up the walk, he sang a funny little rhyme to her which made Betsy laugh—

"Little Betsy Baker—
Take her up and shake her!"

The postman's name was Gerry.

After he had driven on down the road, Betsy heard a great noise at the other end of the street. Then she saw quite a lot of boys running that way, and presently a wagon with a body made of slats came in sight, followed by a policeman and several rough-looking men. Each of these men carried long poles with strong nets attached to them. In the wagon, behind the wooden slats, which made a sort of cage, were a number of dogs, some yapping and barking, some howling piteously.

Betsy ran down to the gate. By and by a man came along, and she asked him what it all meant.

"The dog-catchers are out to-day," said he, "and every dog that is not wearing a collar to show that his tax has been paid, will be taken up by these men and carried to a place called the "pound." If not claimed and the tax paid within three days the dogs are all killed.

This seemed very cruel to Betsy, and she watched them as they came down the street with two bright red spots in her cheeks.

Just as they reached the corner of her yard a beautiful Scotch collie came through the alleyway. He wore no collar, but his lovely, yellow-brown coat glistened in the sunshine.

Immediately the men approached, and, throwing the net over the unsuspecting collie, he was hauled into the wagon and shut up with the other dog prisoners.

"Oh, please, please don't take him!" cried Betsy, running into the street and grabbing the policeman's coat.

"It is a shame to put him in jail for nothing, and to kill him because he hasn't any money to pay his tax!" And big tears rolled down the child's cheeks.

The policeman patted her head and said:

"It can't be helped, little girl. If somebody can raise one dollar and twenty-five cents for him between now and Saturday morning, he can be bailed out of the 'pound' and will belong to the person who pays his tax."

Betsy went slowly back to the porch-steps. All the brightness seemed to have gone suddenly out of the June sunshine.

Presently her cousin Tom came along. Seeing Betsy on the steps, he called out:

"Hello, Betsy!"

Instead of answering and running down to the gate to talk as she usually did, Betsy only waved her hand. So her big cousin (Tom was twelve years old) knew that something must be wrong with the little girl.

"What is the matter, Betsy?" he asked, as he sat down by her side.

"Somebody's in jail," announced Betsy solemnly.

"In jail?" exclaimed Tom.

"Yes, and going to be killed on Saturday if I can't get a dollar and a quarter before then," continued she.

"'Tom, if I were in jail, what would you do?'"

Then she told him all about the cruel dog-catchers and the pretty collie that they had carried off a prisoner.

When she had finished her story, she asked:

"Tom, if I were in jail what would you do?"

"Get you out," promptly answered the boy.

"Then will you help me get that poor collie out?" He has no cousin nor anybody, and he cannot speak a word, but looked at me so pitiful!"

And Betsy's eyes filled with tears as she put her little birthday purse in Tom's hand and said:

"There is my birthday money, but it isn't even half enough. What shall we do?"

Tom thought a while, then a sudden idea occurred to him.

"We will make the money!" he cried.

"I know a way. We will have a store and sell ice-cream and lemonade to people passing by the gate."

So they began work at once.

The hired man helped Tom drag a big wooden box down to the gate to be used as a counter. This was covered with a white cloth. Two Japanese lanterns were hung to the branches of the tree just over the counter.

Tom's mother made a freezer of delicious strawberry ice-cream, and Betsy's mother gave the lemonade and loaned her very best tall glass pitcher.

Such fun as they had getting everything ready!

After supper Tom came over, and he and Betsy opened store, both standing smiling behind the counter.

Gerry, the postman, was the first to stop. He said he was never so thirsty and bought four glasses of lemonade. When he heard Betsy's story of the dog in the "pound," he bought forty cents' worth of ice-cream and carried it home in a paper box.

Then all the children in the neighborhood came and one or two of the grown people. And they all heard the poor dog's story, and each bought something at the children's store.

By nine o'clock Tom and Betsy were "sold out," and had nearly four dollars. So Betsy did not have to use her birthday money after all.

The next morning Tom came to her house leading the pretty collie, now released from the "pound," by a string. He was Betsy's dog now for good and all, and she named him "Laddie."

A year passed, and Betsy grew to love Laddie very dearly, and the faithful dog followed her everywhere.

She had no brothers nor sisters of her own, so Laddie was her sole companion and greatest friend.

One day she went out to look for wild strawberries on the hillside near where the Wabash Railroad spans a narrow stream by means of a high trestle. Thinking that she might find finer berries on the other side of the stream, she resolved to walk across the trestle. She was about half-way across when she slipped and was caught fast between two ties! In vain she struggled to free herself. In vain she cried for help, Laddie barking and pulling at her dress with his teeth.

Weak from her efforts to extricate herself, she finally fell exhausted upon the track, giving now and then a piteous moan!

In the meantime Gerry, the postman, was returning to the village after delivering his daily mail. Passing along the road under the high trestle his attention was attracted by the distressed barking of a dog. Looking up, he saw at the top of the embankment Betsy's dog Laddie.

He called to him. The dog would not come, but continued to run back and forth from the trestle to the side of the embankment barking and whining and gazing constantly toward the track.

Leaving his horse standing in the road, Gerry swiftly climbed the embankment. There, caught fast in the middle of the track, was poor little Betsy Baker!

Far off beyond the bend he heard the rumble of an on-coming train!

Swiftly he extricated the now unconscious child from her perilous situation and ran with her in his arms across the trestle, Laddie, wild with joy, leaping at his heels. Hardly had he reached the safety of the bank when the fast express dashed past!

Gerry drove up to Betsy's father's house with the little girl in his lap and Laddie sitting proudly beside them on the seat.

Before night all the town knew how Laddie had paid his debt of gratitude to Betsy Baker.

Cousin Sally's Letter

Our Club Button

OUR club button is making a decided "hit," and I am just as happy as I can be that so many of my cousins have become members of Cousin Sally's Club. A warm, hearty greeting to you all! The monogram "C. S. C." stands for Cousin Sally's Club and also for the club's motto, which only club-members may know. To be a loyal member of the club you must promise—to be brave and fearless, to tell the truth always, to be kind to animals, and many other things which are very easy to do if you will but put them into practice every day. This isn't in any way a "goody-good" club, but a club which will help you all to become splendid men and women. I am planning jolly and happy times for you all this winter. Members of our club may correspond privately with each other if they so desire. Write to-day for our club button. Think how fine it will be if you are visiting in a neighboring town and meet some boy or girl wearing one of our club buttons. Why you'd be friends right away. You could shake the boy or girl by the hand and say, "Why I belong to Cousin Sally's Club, too, and I am very glad to meet one of our members." I know you will have made a friend for a lifetime. These childhood friends are the friends that count, and you will be able to make many friends through Cousin Sally's Club.

When you write for the button, inclose five cents in stamps and send your letter to Cousin Sally's Club, Farm and Fireside, 11 East 24th Street, New York City. Lovingly, COUSIN SALLY.

DEAR BOYS AND GIRLS:—

I am very glad that so many of you have written to me for suggestions for a Thanksgiving party. I always want to help you whenever I can.

A very unusual party, and one which the young folks are sure to enjoy, is a poverty party. Invitations should be written in pencil on a scrap of common wrapping-paper and the guests requested to come to the party arrayed as shabbily and ragged-looking as possible.

Decorate the room with cranberries strung on thread and garlands of orange-colored crêpe or tissue paper. Use the kitchen-chairs in the dining-room. A few large pumpkins placed around the room will do nicely for chairs and carry out the "poverty" idea. For lights use your father's old barn lanterns, or Jack-o'-lanterns will do just as well and are very spooky and uncanny looking.

Don't use any table-cloth. A fern-dish for the center of the table may be made from a hollowed-out pumpkin with a large cabbage placed inside. Little pumpkins hollowed out and lined with oiled paper are splendid for holding fruit or salted nuts.

Here are a few suggestions for refreshments. Indian-meal mush or rice and milk, thin bread-and-butter sandwiches, gingerbread, pumpkin or apple pie, coffee or cocoa served in tin cups, cookies and doughnuts. If you have cider serve it from your mother's shiny bread-pan and use a tin dipper. Nothing must be fancy at a poverty party. Pasteboard plates and dishes should be used or wooden ones, just as you prefer.

Have some kind of a little favor for each guest. A peanut dressed in tissue paper to represent a Chinaman or a doll would make a cute little souvenir. Or suppose you scoop the center out of half an orange, fill it with nuts, placing the peanut dolly in the center. The boys and girls will be delighted with their favors. Offer a prize for the boy and girl who looks the most "poverty-stricken." Every one should be prepared to tell some hard-luck story. A prize of a large red apple may be given for the best one and a lemon would be an appropriate booby prize for the worst hard-luck story. However, you may use your own judgment about this. I am sure if you carry out some of these suggestions you will have a jolly Thanksgiving party.

Write to me soon. With love,

Ever faithfully, COUSIN SALLY.

Monthly Prize Contest

FOR the five best stories and five best drawings on any subject which you may choose, we will give prizes of beautifully-illustrated books, and souvenir post-card albums.

Give your name, age and address and send work in before November 20th. Address Cousin Sally, Farm and Fireside, 11 East 24th Street, New York City.

Important Notice

FROM the many letters of complaint received from numerous boys and girls who have sent post-cards and received none in return, I have concluded to drop the Post-Card Exchange from our columns. I have also had letters from cousins saying they had received more post-cards than they could answer, and of course the boys and girls who sent them were disappointed in not having an acknowledgment. So from now on, please understand that the Post-Card Exchange will not appear on our page. I want to make this clear so that the boys and girls who have sent their names will not be disappointed because they are not printed. COUSIN SALLY.

Answers to Puzzles in October 10th Issue

1, wren; 2, martin; 3, thrush; 4, pewee; 5, lark; 6, owl; 7, loon; 8, heron; 9, robin; 10, teal.

A Ladder—Left side, Florida; right side, Jackson; first rung, lava; second rung, rock; third rung, dodo.

SUNDAY READING

Love Service

SERVE one another, says the Apostle. It is a love that gives everything and does not ask nor take. It is a love that serves, but there is no friendship and there is no love like that of the parent to the child—that is, the typical parent, for there are grades of development in parentage.

The parent's love is not one that exercises itself in exigencies only. The whole drift of thought in the voluntary and unconscious love of every parent surrounds the household and the children.

A boy is born. The parents are poor. On a penurious farm they are rearing their children—five, six, seven, eight—for God pays poverty with better coin than gold and silver. There is one boy set apart for an education. He will be the glory of the house. Not only do the father and the mother think it, but with almost supernatural ingenuity they work to accomplish it. Why, that old farm is vexed from the top to the bottom of it by the love of those parents, that they may make it wring out a little more, that there may be something saved, for that boy must be sent to college. And early, long before the birds are stirring, and late, when the children are far along in their dreams, father and mother are still toiling. Brown is their skin, like parchment; but Oh! what lore there is in such parchment! What stories such brown faces tell! They toil through ten, through fifteen years; and they are able at last to send their darling boy away. What bone could do, what muscle could do, what nerve could do, what courage could do, what patience could do, what perseverance could do, day and night, through years and years, they did; they denied themselves necessary food, they went scantily clad, mortifying their pride and carrying themselves in apparel among their fellow-men more mean than any others; and all that they might husband and hoard, a little pittance that should educate their darling boy. And he may be said to light, by the marrow of father and mother, the candle by which he gains his education. And so for years they are on the treadmill of inexorable industry. And at last—Oh, woesome day—no such eclipse ever happens in the heaven, when the sun ceases to shine, as come to that father's and mother's heart! The boy has disgraced himself and is expelled! Oh, sun! forget to shine. Oh, moon! let night cover thee with darkness. What tears! What anguish! What heartaches that will not groan and cannot groan! What dead people they are that grope at noon-day and know not wither to go! Yes, the boy is disgraced and cast out! For him they had given everything. Where shall he go? What shall he do? He shall go home. There are father and mother; and there are not on earth any others that will take him so kindly, that will listen to every word that he says so patiently, that will soothe his shame, that will build him up again and that will go on another term of service to put him forward, like father and mother, when they love with a love that knows how to serve.

Is not that the genuine article? Is not that the typical idea? Is not that the love from which you ought to take your ideal of what benevolent love is in life? Serving one another—is there no such thing as that in this world? I tell you, there is a great deal of gold that is not generally recognized. And there are a great many mines of treasure if people would only search for them.

HENRY WARD BEECHER.

Sayings Worth Remembering

When I want to speak let me think first: Is it true? Is it kind? Is it necessary? If not, let it be left unsaid.

To be happy is after all but an incident. To be good and to do good, to know God and to serve Him, are the important things.

If you do fall, if you are overcome, He is faithful and just to forgive, and to cleanse every day from all unrighteousness.

Prayer is a breath of fresh air—much else, of course, but certainly this. It is inspiration on a hill-top for new toiling on the plain.

The man who never makes any mistakes never makes anything. Many chips, broken instruments, cuts and bruises, belong to the history of any beautiful statue. Persist in spite of everything.

MALTBIE DAVENPORT BABCOCK.

The Twinkle in Your Eye

"JUST look at the twinkle in his eye! See him laugh at me!"

Old Jack was the horse with the twinkle in his eye, and it was our farm boy who paid his favorite this tribute. When yet too small to get up to the head of Old Jack, the lad would mount a potato-crate, holding fast to the bridle, and then with his face close up to that of the good, honest horse, watch the expression which came and went in the clear hazel eyes of "the best horse that ever lived."

The man we bought Jack of, a good old Dutchman, was a bit out of patience because we thought the price asked was rather high.

"He's a good, honest horse," he declared, "and if you don't want him you needn't have him."

But we did want him. Looking at his face as he came up over the hill the day we first saw him, the one thing that impressed us was the square, laughing look of his eyes.

"That horse never will do a mean thing," was our verdict, and it proved to be true. Old Jack liked his fun. If he could get a chance he would slip away from you when he was being hitched up and take a grand run about the farm; and you needed to keep out of the way of his heels while he was at this sport; but when it was all over and he had had his play, back he would come as sedate as a deacon, ready for work again.

Have you ever looked into the clear eye of a man like that? You know how it was. You were all tired out that day. Things had not gone just right. The cogs in life's gearing kept slipping until you were all worn threadbare. You wished you might creep away somewhere and let it all go. You were so tired! Such days come to us all, not less on the farm than anywhere else.

Then a friend with a twinkle in his eye comes in. Thank God for him! He is an oasis in the desert of life, a fountain in a weary and dusty land. You cannot remember now what he said. Maybe you never did really know; and yet it was something which made the rough places smooth. In less time than it took to bring you down into the valley you are soaring away up among the mountain peaks of happiness again.

There is health in a twinkling eye.

The world needs men with a twinkle in their eye.

Do you know, men and brethren, these days upon which we have fallen have just about crushed the heart out of us? Step out on the street of any city you may, and look into the faces of the people you meet. Cold, hard, many of them, introspective, impassionate. Come face to face with a man and catch a glimmer of his eye and it makes you wish you hadn't, so hurried is it, so worried, and so full of the glare and glitter of gold. It is often so away back on the farm, too, in these days. The same thing has stung us that has attacked the folks of the city, and we are blighted and dying.

The greatest tribute I ever knew to be paid to any man was that he was "so like a child." Oh, if we could all have that said of us! It is worth wishing for. It is worth working for. It is worth praying for. To bring the sunshine into the heart of some tired man on the road of life, to make one's own home bright and cheery, to light a lamp somewhere that has been snuffed out—that would be worth more than to have people say, "He was a billionaire."

While we are looking for men with laughing eyes, let's see that the sparkle is in our own. EDGAR L. VINCENT.

Thou and Thyself

As I walked by myself
I talked with myself,
And myself said this unto me:
"Make friends with thyself,
Be true to thyself,
And thyself thy good angel shall be."

To live well in the quiet routine of life; to fill a little space because God wills it; to go on cheerfully with a petty round of little duties, little avocations; to smile for the joys of others when the heart is aching—who does this, his works will follow him. He may not be a hero to the world, but he is one of God's heroes.—Dean Farrar.

"Try it anyway" is a good motto. There is a chance that you might succeed. Even if you do not, you will be no worse off than before. Faint-hearted refusal is the worst kind of failure.

Ferns and Flowers All Winter Without Cost to You

FARM AND FIRESIDE can offer its readers **for a few days only** the most superb flower collections. They will bloom this winter. They are the choicest to be had. This is your chance to get a collection of exquisite ferns or dozens of beautiful bulbs, and brighten your home all winter.

Four Great Ferns

Of all decorative plants for indoors, ferns are the most popular. The celebrated Whitmani, the Boston Sword Fern, the lace-like Asparagus, the Emerald—these four make a great collection—the choicest varieties of a great florist. They are strong healthy plants, and their gracefulness and shadings of richest greens make them much admired in baskets, pots and vases.

OUR OFFER

We will send you these four magnificent ferns, all charges prepaid, for **only two** subscriptions to FARM AND FIRESIDE for one year at 35 cents each. **Either** of these subscriptions may be for two years at 50 cents, but a 50-cent order for two years to **one** person counts as only **one** subscription, one of these subscriptions may be your own.

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No flowers are lovelier than the fragrant spikes of the Hyacinth, the gorgeous coloring of the Tulip, the beautiful Chinese Sacred Lily, the Gay Crocus, the Oxalis, with its big flowers—all of which are included in this collection—thirty-two good sound bulbs in all. Full directions are included in each collection for getting the very best results.

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How to Get the Flowers

You can easily get **two** subscriptions from friends, relatives or neighbors. Show them your copy of FARM AND FIRESIDE. Let them see that FARM AND FIRESIDE is the biggest and best farm and family paper. Start now and you will have the flowers in a week's time.

Offer No. 1 We will send you these four beautiful ferns **or** the collection of thirty-two fine bulbs for only **two** subscriptions to FARM AND FIRESIDE for one year at 35 cents each. One of these subscriptions may be your own. Either subscription may be for two years at 50 cents, but a **50-cent order** for **two years to one person** counts as only one subscription.

Offer No. 2 For **four** subscriptions you can get **both** the bulb collection and the ferns, or **two sets** of the offer you like best. Remember, FARM AND FIRESIDE for two years costs only 50 cents, but two years to one address counts as only **one** subscription, not as **two.**

Offer No. 3 For 50 cents we will send you these four beautiful ferns **or** the collection of flowering bulbs and FARM AND FIRESIDE for **one year** ahead.

Offer No. 4 For 65 cents we will send you these four beautiful ferns **or** the collection of flowering bulbs and FARM AND FIRESIDE for **two years** ahead.

The price of FARM AND FIRESIDE is going up—you must order now. These offers are good until NOVEMBER 10th **only.**

Note—For subscriptions in Canada 25 cents extra for postage for each subscription must be added.

FARM AND FIRESIDE, Springfield, Ohio

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My Name is.....

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.....

F. & F. 11-10-09.

A Few of the Premiums

The Housewife's Club

EDITOR'S NOTE—This department has been introduced for the special purpose of helping the Farm and Fireside readers in all problems pertaining to the household. From now on we shall offer monthly prizes as follows: Two dollars for the best description and rough sketch of an original, home-made household convenience or labor-saving device; $1.00 for the second best; while 25 cents will be given for all recipes and household hints that can be used. This month's competition closes December 10th. Contributions must be written in ink, on one side of the paper, and must contain not more than 250 words. We would suggest that contributors retain copies of their manuscripts, as no contributions will be returned. Address "The Housewife's Club" Care of Farm and Fireside, Springfield, Ohio.

To Make Light Bread

DISSOLVE one yeast-cake in about one quart of lukewarm water. Add one tablespoonful each of sugar, lard and salt; flour enough to make a dough. Set the sponge at night and let rise until nine o'clock the next morning, then work well, adding flour as needed. Make into loaves or rolls, let rise about three hours, then bake in a hot oven.

MRS. B., Mississippi.

To Mend Broken Plastering

WHEN plaster of Paris is not at hand, use this excellent substitute. I can recommend it, for I have given it a trial. Use equal parts of sifted coal-ashes and fine sand with one of sifted wheat-flour. Mix to a rather stiff paste with cold water. This will set hard in a few hours, and any one can apply it.

G. B., Massachusetts.

Utilizing an Unused Table-Leaf

IN MY dining-room I have an attractive shelf, between two windows, which not only serves as a place for some of my prettiest plates and china, but also solved for me the problem of what to do with a table-leaf which I never had occasion to use. I nailed a bracket to the side of each window and laid my table-leaf over it. A scarf draped over the improvised shelf hid the brackets and the unfinished appearance beneath. It was a great relief to me to have this table-leaf out of the way, and it's also an improvement to my dining-room.

E. H. L., New York.

Farm-and-Fireside Pie

I HAVE christened the following recipe for pie in honor of FARM AND FIRESIDE and can assure the many readers of The Housewife's Club that it is well worth trying. Chop together one cupful of cranberries, one cupful of seeded raisins and one cupful of mixed nuts and figs. Then stir in one cupful of granulated sugar, one tablespoonful of flour, a saltspoonful of salt, three fourths of a cupful of water and one teaspoonful of vanilla. Sprinkle chopped nuts over the top and bake in upper and lower crust.

MRS. S. J. H., Wisconsin.

Library Paste

TO MAKE library paste that will keep indefinitely, dissolve one ounce of alum in one quart of water, add flour enough to make a thin paste, stir in one teaspoonful of powdered resin, add two or three whole cloves and boil until thoroughly cooked, stirring constantly. This paste should be kept in a jar with a tight cover.

E. C. H., Wisconsin.

Improvised Waist-Hangers

I SAVE the rollers of old window-shades, also broomsticks. I cut or saw them into lengths of about fifteen or eighteen inches, or shorter if for small waists or children's dresses. Make notches midway between ends. Tie a heavy cord securely to notches, leaving it long enough to make a loop by which to hang it from the nail. In this way several garments may be hung on the same nail without drawing them out of shape.

S. G. B., Kansas.

Mince-Meat

BOIL until tender three pounds of lean beef. Let cool, then chop fine. Use four pounds of finely-chopped apples, one pound of shredded citron, two pounds of seeded raisins, one pound of currants, two pounds of sugar, the juice and rind of two oranges and two lemons, two grated nutmegs, two teaspoonfuls of ground cinnamon, one teaspoonful of ground cloves and one pint of cider. Pack in jars. It will keep a long time without canning. The beef should be salted when cooked.

MRS. J. L. R., Ohio.

Apple-Fritters

PEEL and slice a pint cup of good cooking apples. Make a batter of one pint of sweet milk, one pint (or over) of flour, a heaping teaspoonful of baking-powder, a pinch of salt and one well-beaten egg. Add the sliced apples, flavor with cinnamon; dip by small spoonfuls into boiling-hot fat. Let brown lightly, then turn and let brown on the other side. These are delicious when sprinkled with powdered sugar or they may be served with honey or jelly. This is an excellent breakfast dish.

E. O'D., Kansas.

Marking a Place for Buttons

PIN the buttonholed edge of the garment in place. Take a needleful of thread, begin at one end and take a single stitch in every buttonhole, carrying the thread to the opposite end. Cut the thread half way between the buttonholes, lift off the cloth and there will be a bit of thread where each button should be sewed.

E. F., Delaware.

Tea-Cakes

THREE cupfuls of sugar, four cupfuls of flour, three eggs, one cupful of butter, one cupful of milk and one teaspoonful of soda. Let rise, and bake in a quick oven. These are delicious.

C. L., Connecticut.

Thanksgiving Cake

ONE egg, one half cupful of butter, one cupful of sugar, one and one half teaspoonfuls of baking-powder, one half cupful of milk, two cupfuls of flour, one cupful of raisins stoned and dusted with flour, nutmeg and cinnamon to taste, use just enough to darken the dough a little. A frosting for this cake may be made as follows: One cupful of granulated sugar, one half cupful of milk, two tablespoonfuls of cocoa and one even teaspoonful of butter. Mix together and boil four minutes without stirring. Remove from the fire and beat until it begins to thicken; then spread at once over cold cake. If it does not thicken readily, boil again for two or three minutes.

MRS. R. S. K., Ohio.

Hint for Mothers

WHEN you buy the children's drawers for winter, sew a piece of tape about three or four inches long across the bottom of the legs. This will prevent the drawers from wrinkling up when the stockings are put on and save a great deal of trouble.

MRS. J. E. W., Massachusetts.

Two Useful Hints

TO MAKE wall-paper stick over calcimine or whitewashed walls, get a large brush and some ocher, and paint the walls first. The paper will stick on beautifully.

The best way to iron hand embroideries of all descriptions is to iron them right side down on a heavy Turkish towel. This raises the design, and the effect is fine.

MRS. R. H. H., Mississippi.

How to Clean Mattings

BENZINE and French chalk will remove grease from mattings. Sprinkle powdered chalk over the spot and moisten well with benzine, and when this has evaporated brush off the chalk. Wash the matting once a month with a clean cloth dipped in salt and water. Be careful not to use the benzine near a fire, as it is highly explosive.

J. U., Missouri.

Uses for Cold Biscuits

HEAT them in a steamer, then split them and put a couple of spoonfuls of any desired fruit between the halves and serve with sugar and cream. Or, steam the biscuits, break them up and put into a tureen. Pour over them a pint of thickened chicken or beef gravy.

C. M. H., Pennsylvania.

Crab-Apple Catchup

SIX pounds of crab-apples cooked and put through a sieve; two quarts of vinegar, three and one half pounds of sugar, two tablespoonfuls of cinnamon and one tablespoonful each of pepper, cloves and salt. Cook, bottle and seal.

MRS. F. S. R., New York.

Pumpkin-Pie Without Eggs

ONE cupful each of pumpkin and sweet milk, one half cupful of maple-syrup, one tablespoonful of corn-starch, three tablespoonfuls of sugar, flavor with nutmeg.

C. M. H., Pennsylvania.

Just Six Minutes to Wash a Tubful!

This is the grandest Washer the world has ever known. So easy to run that it's almost fun to work it. Makes clothes spotlessly clean in double-quick time. Six minutes finishes a tubful.

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Reg. U. S. Pat. Off.

When a lamp-chimney breaks it means a loss, not only of the chimney, but of the use of the lamp.

Sometimes that inconvenience amounts to ten times the value of any lamp-chimney.

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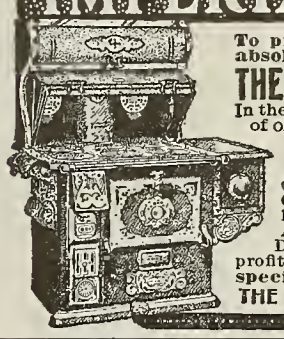

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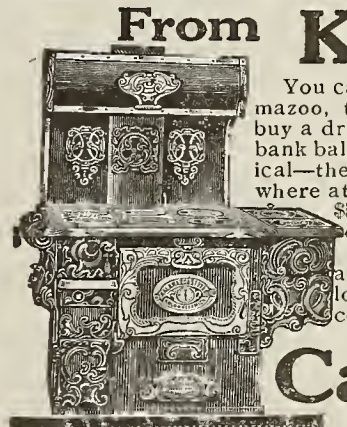

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The Housewife's Letter-Box

We shall be very glad to have our readers answer any of the questions asked, also to hear from any one desiring information on household matters. There is no payment for contributions to this column. Address "The Housewife's Letter-Box," Farm and Fireside, Springfield, Ohio

Questions

Wanted—a recipe for banana filling for cake.

M. E. C., Missouri.

Can some one tell me how to get rid of little red ants that get into my ice-box and around the pantry?

H. N. N., Texas.

Will some one send me a recipe for making onion pickle whole?

N. H., North Carolina.

H. L., of New York, would like recipe for making "hop-beer" or the old-fashioned Scotch "Treakle Tule;" also one for making grape-wine.

Answers

White Taffy Candy, for Mrs. J. D., Michigan

Put into a granite pan as much granulated sugar as you wish according to the amount of candy desired, and put on enough water to just cover the sugar. Add a tablespoonful of vinegar. Boil until it hardens when a little is dropped into cold water. Do not stir after it begins to boil. Drop in butter the size of a hickory-nut. Pour into greased pans, but do not scrape the vessel. When cool enough to handle add a little vanilla and pull until it becomes white.

MRS. W. A. S., Indiana.

If Mrs. J., of Tennessee, will send me her full name and address I will be glad to communicate with her regarding her questions about root-beer seed and chili pepper. It is impossible to give names in the paper.

EDITOR.

For Mrs. T. R. S.

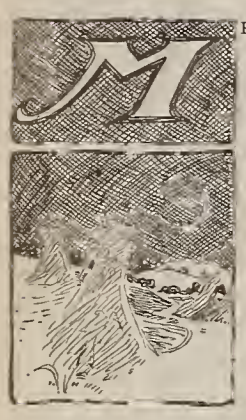
Sprinkle the cocoa stain on your linen tablecloth with borax. Soak in cold water and then pour on boiling water. This is generally efficacious.

EDITOR.

Mrs. Nelson's Thanksgiving

By Blanche Mitchell Burrell

Illustrated by Henry Haygarth Leonard



MRS. NELSON drew her white knitted shawl more closely about her, a tribute to the keen November air which blew around the knoll capped by her house. Oblivious of the sunlight on the harvested corn-field by the river and of the mountains beyond, her eyes were fastened on a young man driving toward her from the village. He drew up before the gate.

"No letter this morning, Mrs. Nelson!" he called in a strong young voice. "Better luck next time! I'll stop by again and let you know if anything comes on the evening train."

Mrs. Nelson nodded and tried to smile as he drove off. Then she sat down on the porch-steps with an air which said as plainly as words that the proverbial last straw had been added.

The bell began to ring in the little church close by. Mrs. Nelson's expression became more set.

"It does seem," she soliloquized, "that any one who isn't downright afflicted ought to have something to be thankful for. But I declare the mere sound of that church-bell gives me the fidgets! If I could only be real busy for an hour or two this hardness of spirit might wear off, but I don't even seem to be of any use in the world."

As if to corroborate this last statement a figure of generous proportions appeared around the corner of the house.

"What time does you want yo' dinner, Miss Lucy?" the mellow voice inquired. "Me an' little Mandy 'lowed we'd see to everything, so's you wouldn't have to sile yo' han's."

"Oh, dinner, Mandy?" replied Mrs. Nelson. "I don't care about dinner. Just fix up anything you and little Mandy want."

The figure disappeared with an ominous shake of its head, leaving Mrs. Nelson alone again with her reflections.

"They say the back is fitted to the burden," she continued to muse, "but I don't seem fitted to being unhappy. I suppose I've met with my share of this world's misfortunes, yet this is the first time I'm not able to bear up. I know if I'd tell Letty how I felt about it there'd be one nurse less at Johns Hopkins, but it does seem a shame that the child's life should be spoiled just to please her lonely old mother. Her whole heart is certainly set on her profession!" she added with a sigh.

The air had by this time begun to penetrate the knitted shawl, and Mrs. Nelson rose somewhat stiffly to her feet.

A child trotted down the road, singing. The words reached her clearly:

"The turkey gobbled yesterday,
I'll gobble him to-day,
With cake and pumpkin-pie as well—"

"Bless the boy! It's mighty little turkey and pumpkin-pie he'll get this Thanksgiving dinner! And my pantry full when I don't care what I eat."

And as she folded her shawl and warmed her hands at the fire, her thoughts continued to run on life's contrasts. There seemed no room in her mind for the usual pleasant, cheerful convictions. Mrs. Nelson did not believe herself born to be unhappy; she had long ago decided that while Providence indubitably had the right to heap misfortunes upon her, it was her counter-right to be able to "bear up" and enjoy life if possible. But since Letty's departure for the hospital that power seemed to have left her and she felt herself a lonely old woman.

There was Mrs. Spears with any number of hungry children and a husband too shiftless to find bread for their mouths, while her only chick persistently refused to be supported by any one, all thoughts bent on independence.

"Strange that Providence doesn't fix things up more equally," was her heartfelt if unoriginal comment. "But perhaps He reasoned that it would be more neighborly if we did a little sharing on our own account. 'Twould give us something to think about."

And at last Mrs. Nelson had something besides her own lonely heart to "think about." She was making a plan.

"I don't believe the Lord wants me to be unhappy," she argued stoutly, "I've half a notion to act as if I had everything in the world I care for and then pray to be thankful for what I really have got. Even if my only child has been taken from me, there's no need to fret over what I can't help."

Filled with her new idea, Mrs. Nelson sought out Mandy in her domain.

"I've changed my mind about dinner," she announced, much to that worthy soul's delight. "You fix up that turkey and the cranberries, with all the rest that belongs to Thanksgiving—and don't forget to bake some pumpkin-pies!"

Then, remembering the minutes that had passed since the first church-bell rang, she hurried off up-stairs to prepare herself for service.

She took a seat well to the front, and sank on her knees.

"O, Lord," she prayed, "put thankfulness into my heart! I realize my blessings as well as any one, but when I can't have Letty they turn to ashes in my mouth. You have promised that if a person has faith everything else will be added unto him. I have faith, I want to be thankful—please put it in my heart! Give me plenty to do and make me thankful on this Thanksgiving Day! Amen."

She rose, vaguely comforted. She had done her best. She had cast her burden on the Lord and confidently looked to Him to lighten it.

The service soon came to an end, for with Thanksgiving dinner to prepare, few of the housewives had time for prolonged spirituality. One of these accosted Mrs. Nelson on her way out.

"Have you heard of old lady Warner's accident?" she questioned with a cheerful smile.

"No, indeed!" replied Mrs. Nelson, in a tone of blended interest and sympathy. "What on earth has happened to her now?"

"Broken her hip!" announced Mrs. Jessups, "and no one to wait on her but that little darky girl! Her grandson threw a base-ball right through the kitchen window, and the old lady was so startled she jumped up, stepped on the ball and lay there with a broken hip before you could say Jack Robinson!"

Mrs. Nelson appeared duly impressed with this last statement.

"Poor old soul!" she exclaimed. "I'll step in and see her on my way home. The best darky in the world isn't much to depend on, let alone a child like she's got!"

And she was as good as her word. After straightening out the Warner menage and giving the little darky a series of directions, she decided to stop at the Spears, whose Johnny she had heard singing his Thanksgiving anthem that morning.

"It's a mystery to me," she said to Johnny's mother, "how you ever get all those children filled up at once! I reckon I'll send little Mandy around with a few fixings from my dinner—there'll be enough and to spare, since I'm all alone. . . . No, Letty won't be here to eat it with me; they're very strict with the nurses the first year."

By the time Mrs. Spears' thanks had been added to Mrs. Warner's, Mrs. Nelson began to feel a return of her old self. She walked up the hill toward home quite briskly.

"I declare," she reproached herself with some remorse, "it's downright sinful, the amount of satisfaction I have gotten out of other people's troubles!"

She entered the house without the usual sinking of her heart, and hurried to the kitchen to give the necessary orders concerning Mrs. Spears' basket. Then she went up to her own room, and laying off her jacket and hat, opened the closet-door.

"The turkey gobbled yesterday,
I'll gobble him to-day,
With cake and pumpkin-pie as well—"

"I'll dress up just as I used to when Letty was here," she decided, "even if I am alone. Bob promised to stop in if there was a letter, and it won't do any harm to be caught looking nice. He's a fine boy, and mighty good to Letty's mother—since Letty won't allow him to be good to her!"

So she drew the black taffeta from the shelf and was fastening the coral brooch at her throat when Mandy's voice floating up the stairway announced that dinner was on the table.

As she went down, Mrs. Nelson's heart began to show signs of failure to live up to her resolve. How could she bear to attack that turkey single-handed? And then the long, solitary afternoon to follow!

A light footfall on the porch outside caused her to hasten down the remaining steps. Could it be Bob with a letter from Letty to help her through the day? She opened the door and on the threshold stood a young girl whose blonde beauty had in it something suggestive of the warrior-maids of Northern myth.

"Letty!" gasped Mrs. Nelson. "Letty!"

"Dear little mother!" and the girl's young arms were about her.

"But—why, mother!" For Mrs. Nelson was shaken with sobs.

She soon conquered her emotion, however, and drew the girl to the fire. A dozen questions trembled on her lips, but Mandy's suggestion to "set down to the table while dinner was fit to eat and do the talking later" appealed to her sense of the practical. And never was Thanksgiving dinner more appreciated. Mrs. Nelson ate daintily, a pink flush on her softly wrinkled cheeks, Letty with frank young appetite. But there was plenty of time for conversation, and each poured out the intimate nothings of her daily life, sure of the other's sympathy.

However, it was not till they were cozily seated in the parlor before a bright fire of snapping pine that they touched upon the really vital subject, Letty's unexpected appearance.

"I thought you couldn't get off, dearie," Mrs. Nelson half inquired.

"But I did!" replied Letty with energy. "Oh, mother, I've just begun to wake up! Do you want me to tell you how I happened to have my eyes opened?" She knelt by her mother's chair and threw an arm about her. "I was sent up to sit with a patient while the regular nurse was off duty and found her to be the dearest lady, all soft elegance, though she had just gone through a severe operation. I was with her off and on for several days and couldn't help noticing that she never had any visitors or flowers sent her—just lay there, alone! So I asked her if she were a stranger in the city. And, mother, it turned out that she had no one belonging to her but a daughter who is very musical—you should have heard how proud my dear lady was of her! She feared to write of her illness, as this series of concerts was so important and Irene was too nervous to be troubled at such a time! That mother would rather face death alone than run the risk of spoiling her child's career!

"Somehow after that you were on my mind every minute. I began to dream that the house was burning up and there was no one to rescue you and other dreadful things. Then all at once it came over me what a failure I was as a daughter. How could I have left you here alone and deluded myself into thinking that I was doing something fine in earning my own living, which wasn't really necessary, after all? Oh, mother, mother, I've come home to stay!"

"Yes, dearie," soothed Mrs. Nelson, "you must have a nice long rest before you work so hard again." And she looked anxiously at her daughter's face, the radiant bloom of which was untouched by the labor of the past months.

"No, mother," returned Letty, "I'm not going back. Maybe I'm fickle and changeable, but since I've had time to think things over through all those long hours when here at home I'd have been sound asleep in bed things seem different, somehow. You see," and the girl's brows, dark above the blueness of her eyes, drew together in her effort to make her meaning plain. "I've always been so big and strong that it seemed natural to do something, not just idle about over a bit of fancy work. The hard work at the hospital never bothered me as it did some of the girls. But, mother, when I really thought it over it seemed foolish to waste all my strength on strangers whom some one else could have cared for quite as well and give just the dregs of my life to those I love best in the world."

"Well," was Mrs. Nelson's happily-spoken reflection, "girls nowadays mayn't get the same kind of education I had when I was young, but when you come right down to it I don't think it's changed much the way their minds work."

"Nor their hearts," spoke Letty.

Mrs. Nelson looked at her daughter with a question in her eyes, but the girl's glance was fixed on the fire.

The mother's curiosity might have found words, but the sound of the door-bell put an end to confidences. A second later Bob entered the room.

"Letty!" the young fellow exclaimed as his eyes fell on the girl. "Letty! Have you come home?" And he took her outstretched hand.

"Yes, Bob," Letty answered, meeting his eyes bravely. "And I reckon I've come to my senses as well!"

Bob possessed himself of the other hand. With a murmured word about a plate of cookies Mrs. Nelson left the room. Thanksgiving was in her heart.

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FARM AND FIRESIDE

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Were your child to sprain an ankle while out walking with you?
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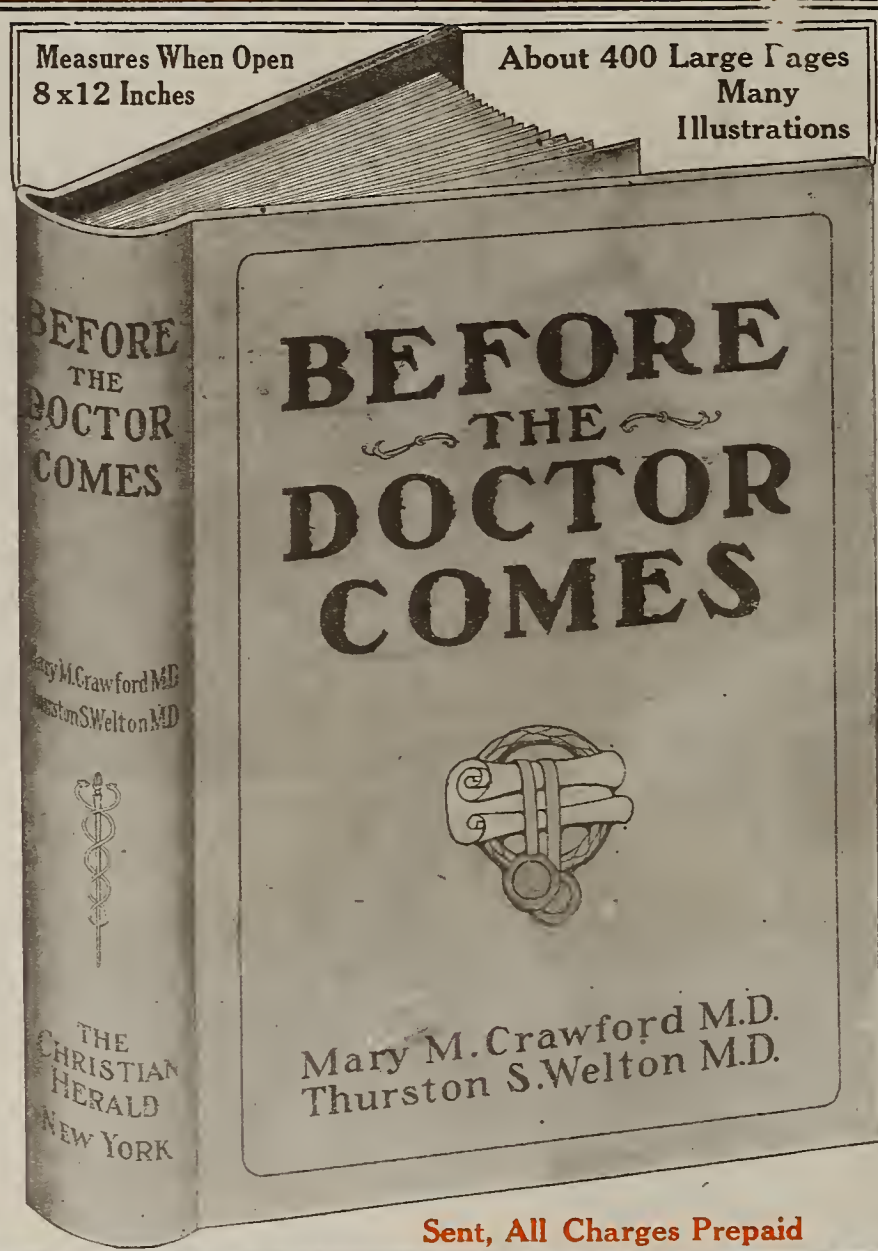

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FARM AND FIRESIDE

Vol. XXXIII. No. 4 Springfield, Ohio, November 25, 1909 PUBLISHED SEMI-MONTHLY

P. G. Holden, Corn Evangelist

By Will A. Campbell

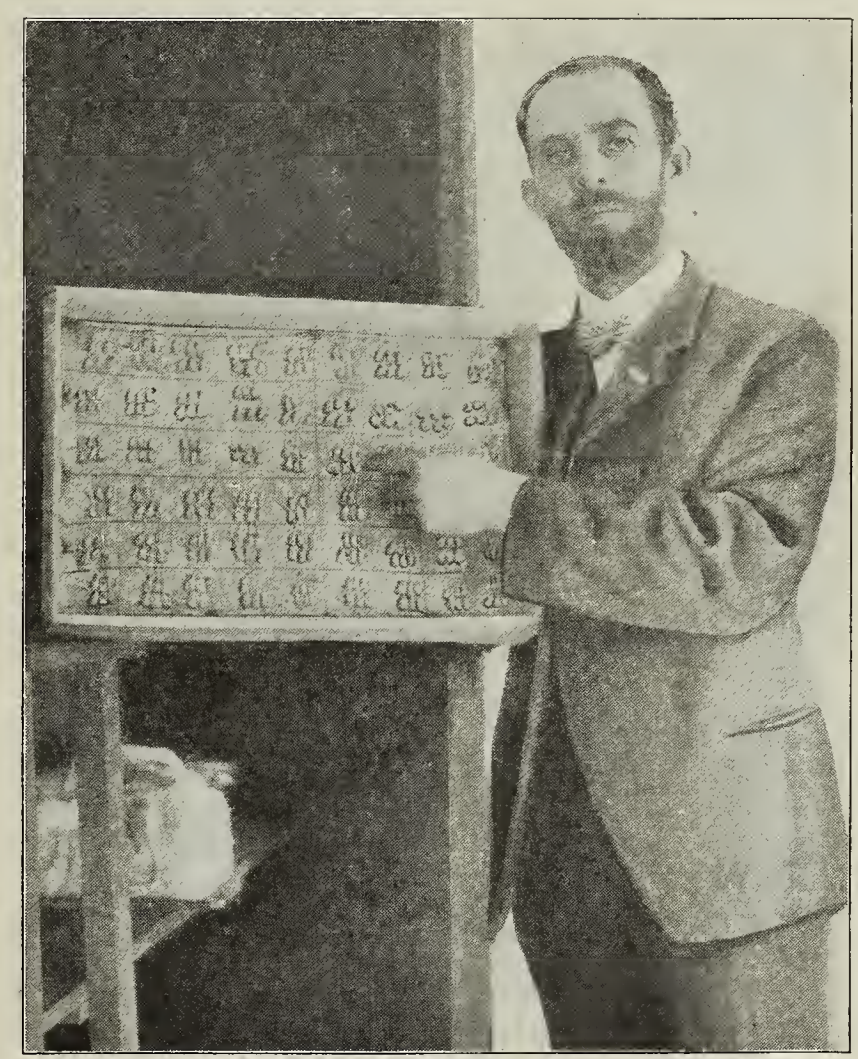
This article is the first of a series on benefactors of agriculture. "Bene" means "good" and "factor" means "worker." Doctor Holden has been one of the most powerful workers of good that American agriculture has seen. Fortunately he is not the only one. Watch for the others in the series.

YEARS ago there were many men in the West who had received some training for the Christian ministry in Bible training-schools, and fired with the zeal imparted by such men as Moody, they traveled to the mining camps and towns on the "red border," calling attention to the waste of dissipation. Being men of self-sacrifice, unusual nerve and completely overwhelmed with the thought of wickedness all about them, they adopted some extraordinary methods. Not infrequently the inhabitants of a small town would be awakened from slumber in the early morning by the shouting of a man walking in the street with an open Bible in his hand, proclaiming that the time had come for men to stop the waste and wickedness. These daring and unusual ministers are known as evangelists. They not only aroused the flocks of the churches, but started all men to thinking, and not infrequently publicly denounced the ministers in the town for not teaching better and being more alert. Their success in many places worked wonders, such towns as Leadville and Deadwood were purged—there were "outcasts of Poker Flat" all over the West.

One day in 1904 an Iowa college professor worked out a problem in arithmatic which caused him to catch some of the zeal which the evangelists had caught in their training-schools, and he resolved on a campaign in behalf of yellow and white, variegated and red, dent and flint, Indian corn, almost as unique as that adopted by the traveling evangelists who had been calling men to account for the waste of life by wickedness.

Professor Holden's little problem showed the farms were increasing in value because of the new and complex development and new armies of pioneers pushing into the West. At the rate they were producing, the best would soon stop "paying dividends" on a valuation of one hundred dollars per acre.

Thirty years ago, with land worth eight dollars to twenty dollars per acre, a farmer did not need to be as careful as he must be to-day when the same land is worth from seventy-five dollars to one hundred and fifty dollars per acre. "There must be better farming in the middle West, and one way to do it is to go out among the farmers and show them that the 'book-farmers' in the agricultural colleges are practical farmers—that they are capable of making more than a living on forty acres and would not starve to death on one hundred and sixty acres, as the farmers say sometimes," said Holden, after having thought the matter over.



Holden Demonstrating the Seed-Tester at a Farmers' Meeting

Other men were given thought to the same problem of rising land values and lagging production. As early as 1896, Henry Wallace, editor of "Wallace's Farmer," in company with State Dairy Commissioner Boardman, had made a trial of the special train as an educational agent, in a campaign for the stimulation of dairy interest through the Des Moines valley. Now the former and Superintendent Given, of the Rock Island road, turned their attention to the corn question. They called Professor Holden into their councils. It was at once manifest that he was the ideal executive—the man to do the work.

Accordingly, Professor Holden planned a campaign in Iowa with the assistance of railroad managers. He would take a special train, go out on the railroads where he could meet the farmers and show them that science only simplifies. In Iowa he could reach them easily, as there are but two small spots in that great agricultural state which are more than ten miles from a railroad.

Professor Holden's plan was not to go into plant-breeding, but to confine himself largely to insisting that the farmers plant selected seed-corn, seed which had been tested in a simple device which could be made in any farm workshop. Given this hint in lectures and by the use of charts, the Iowa educator believed the direct result would be instantaneous, while the fairy-land of science would be opened a little way to the farmers, and they would realize after the first year or two of experimenting that by harnessing up and using the forces of heredity in corn and other farm crops, production could be greatly increased and consequently the profits of farming become greater—the land "pay dividends" on a higher valuation, because brains had been mixed with muscle in meeting the seasons.

The work Professor Holden proposed to do was evangelistic, and when his trains were started down the long lines of shimmering steel, they became known as "Seed-corn Gospel Trains."

To go out on these trains and lecture many times each day—sometimes on board the train where a lecture-room was arranged in a car, sometimes in a school-house or town hall, often several miles from the railroad at a meeting of farmers—meant some hard work for Professor Holden and the little handful of college students and assistants he gathered around him for the campaign. But he sacrificed not only his home life for several seasons at the time when the weather is the most disagreeable, but also used no small amount of his personal means to prepare for the trips. He was to be and has been an evangelist indeed. Others may claim the honor of completing the work of P. G. Holden and his associates; others have followed in his footsteps with trains to preach the gospel of better oats; special trains are running this year in Wyoming and Montana, and men are preaching irrigation, dry-farming systems, barley-breeding, sugar-beet culture, high-altitude farming, while others are telling stock-growers how the choice blood streams of heredity in animals are waiting for the intelligent breeder to segregate them and make them available. But Holden of Iowa awoke the laymen and called attention to the fact that the leaders should make the knowledge they had secured accessible to the farmers—save them a lifetime of experimenting by telling them what had been learned by the scientists who took the knowledge down from dusty library shelves, planted the seed in the earth and waited patiently for the earth and the changing energy of living protoplasm to speak to them.

During the spring seasons of 1904, 1905 and 1906 Professor Holden traveled in his "gospel train" over eleven thousand miles and made seven hundred and eighty-nine stops, and more than one hundred and seventy-five thousand people heard one thousand two hundred and sixty-five lectures. The trains were furnished by the railroads, enterprising managers realizing at once that the gospel Holden was preaching would show up within twelve months in increased grain tonnage. They advertised the trips, and the trains were run on regular schedules, good audiences always awaiting their arrival.

"There are just as many quarter sections around a small town as around a large one," said Professor Holden, "so we stopped at every station where they took interest enough to advertise the meeting. We wanted the farmers from those quarter sections and their sons. The way to get close to the farmer is to go to his little town and meet him most informally at home with his neighbors without any 'dress up.' We took away the terrors of science by showing how simple are her laws, so easily understood by all, but which no one may violate without paying the penalty. We showed how many farmers who didn't test their seed were wasting one third of their time and one third of their land planting seed that did not grow, leaving vacant places that cost just as much to cultivate as if they were filled with good stalks, each bearing a twelve or fourteen ounce ear."

To summarize a lecture, the points made were these:

1. The low average of thirty-one bushels per acre over the state, while many farmers were producing sixty to seventy bushels per acre.

2. The poor stand, due to poor seed, uneven dropping of the seed by the planter and poor preparation of the seed-bed.

3. The loss from planting unsuitable varieties, and also corn which has deteriorated under unfavorable conditions.

4. What the farmer himself can do toward improving his corn by selecting and breeding, with emphasis on the imperative necessity of careful selection and testing of seed, accompanied by simple directions for doing it.

Some of the figures Professor Holden presented were startling, but they sent large audiences of farmers away from the meetings pledged never again to select seed-corn from a crib with a scoop shovel.

"Let us see what a field ought to produce," he told them, "planting corn in hills three and a half feet apart, three kernels to a hill. Fair land, with ordinary care, will produce a good ear on at least two stalks in every hill. There are three thousand five hundred and fifty-six hills to the acre, so there should be ten thousand six hundred and sixty-eight stalks. One twelve-ounce ear to the hill makes thirty-eight bushels an acre; an eight-ounce ear makes twenty-five and five tenths bushels per acre. So you see two twelve-ounce ears would give seventy-six bushels an acre, and if you add an eight-ounce nubbin, there are over one hundred bushels on every acre. Good corn-growers, who give proper care to the testing and selection of seeds, the preparation of the ground and the cultivation, will have a large percentage of sixteen-ounce ears, few small ones and very few hills with less than two good ears. One hundred bushels per acre is neither impractical nor difficult."

The little seed-testing box, with its numbered sections to register the kernels from every ear, with its damp cloths and rude construction, is perhaps the secret of Professor Holden's success. He held this box constantly before the farmers in the audience. In his car were the seed-testers with kernels of corn in them, some which had germinated and thrown out strong shoots or sprouts; others had developed some signs of germination, but the sprouts were "sickly," while in some sections of the tester lay grains which would never sprout. They were barren, so far as

being able to produce corn-plants were concerned. They might contain starch, oil, ash and other elements which would do for feed, but the little cell on the side of the kernels, which gives the corn the power of reproduction, was lacking. Such grains would never make reproduction the basis of new wealth. They are worthless, and the ears from which they are taken must be discarded, as the chances are against any of the kernels being potent enough with life to reproduce a strong plant, when several grains taken from the center of the ear fail to germinate when put in the tester.

Direct results of Professor Holden's work are visible not only in Iowa, but in all the states of the middle West. Trains were run in Nebraska, South Dakota, Kansas and southern Minnesota, and men from the agricultural colleges preached the gospel of better seed-corn, the possibilities of increasing the production of the fields when the energy of heredity is made to work for man as the energy of electricity has been used to drive machinery and increase production.

Professor Holden's accomplishments have been made the subject of such towering computations that the actual and remarkable results he attained have been overlaid with exaggerations. In Iowa, however, it is commonly said and admitted by those who were skeptical about his work that "he increased the corn crop to an extent that made twelve million dollars for the farmers in 1906." Of course in an operation so complex as the growth of corn, where so many factors of weather, moisture and cultivation combine to determine the yield, it is impossible to figure just what part of an increase should be credited to each factor; but men in the state college at Ames have figured, by the most careful methods possible, that the farmers of Iowa, using Holden's tests, have saved themselves from loss by reason of poorly-germinating seed to an extent that has made a ten-per-cent difference in the corn crop of the state. In a good year like 1906, when the state turned out an average of forty bushels an acre from over nine million acres, the crop is worth, at the market rate of thirty-three cents, one hundred and twenty million dollars. Consider then what a ten-per-cent difference one way or the other signifies on the basis of such a value as that. Even estimating the difference at the ultra-conservative figure of five per cent, it means a cash gain of six millions annually, traceable to Professor Holden's work.

Since the gospel work was done in Iowa, the evangelist has turned his attention to the "short course" and corn-show work, which has widened the influence of the agricultural colleges. Following the special trains, the college at Ames, Iowa, received thirty-seven thousand letters asking for short courses, lectures, information or help of some kind. This resulted in the state of Iowa establishing the department of agricultural extension at the college and making an appropriation of fifteen thousand dollars for the first year which has been followed by larger appropriations each year since. Professor Holden was made superintendent of this department. Some trains were run last year to preach the gospel of better oats. The oats of Iowa and Nebraska have been of such poor quality the last few years that grain-dealers have had difficulty filling orders for millers because the oats were not of standard weight. Little by little the farmers have come to believe that our grains are the most highly developed and domesticated plants, their wild varieties are unknown, and but for the care and eternal watchfulness of man, they would disappear from the earth.

Professor Holden encouraged the corn-growers to bring their best grains and grasses to the short courses held in all parts of the state and compare them with the products of other farmers. This developed a rivalry, and prizes were offered in different ways for the best ear or the best ten ears of corn. These prize-winners were taken to the big short course held at Ames in January. With every exhibition the interest rose, a little at a time, till it seemed as if the whole state of Iowa was growing corn for exhibition as well as for feeding.

This "corn show" idea spread. Other states followed the example of Iowa, and it looked as if an international contest was coming within a few years. In 1907 the first National Corn Exposition was held in Chicago. Prof. P. G. Holden and Eugene Funk, of Illinois, who had given Holden encouragement and had him experiment on his own great farms, were the men "behind the corn show." The show was a success, but did not satisfy the educators. Holden wanted something which would give graphic expression of what could be accomplished by the systematic selection and testing of seed, by planting "pure-bred" corn and other grains.

It was hard to hold a show, such as the agricultural colleges wanted, in Chicago with its vast and varied interests. The city, while in the heart of the farms, seemed "too far away" to the farmers who would attend and enter their grains and grasses for prizes. So after a meeting with the National Corn Association, it was decided to take the show to Omaha, on the dividing line between the highly-developed farms of the East and the new irrigated and dry-farmed lands of the West, midway, in fact, between the farms and the ranges. The show was held there in 1908, and the third National Corn Exposition is to be held this year in Omaha, December 6th to 18th.

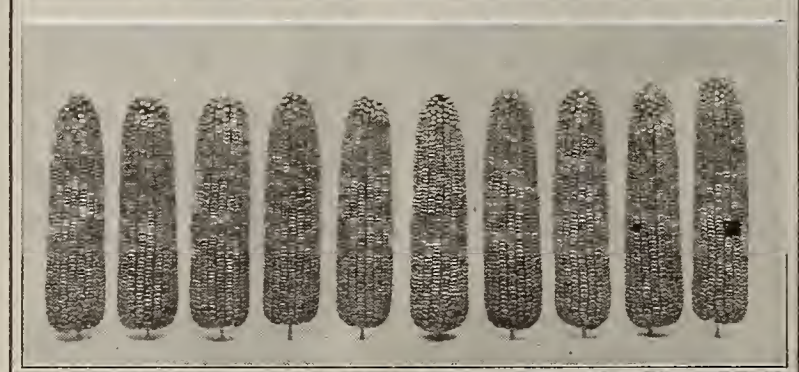
P. G. Holden did not dream of the proportions this show would assume when he started "corn contests" in Iowa. The second year it was attended by one hundred and five thousand farmers, and seven thousand three hundred of them made entries for prizes which were awarded, amounting to fifty thousand dollars. For this year's show at Omaha twenty-five agricultural colleges and schools will make exhibits, each of which will show in some way the breeding power—the "projected efficiency" or the power of the individual plant to beget valuable progeny. It is the central idea of the National Corn Exposition—this problem of dealing with the changing energy of living protoplasm: this harnessing and guiding the choicest blood streams of heredity to make them do work in reproducing commodities of the farm which means increased profits, a better and happier people, because a people with more food.

Thus Prof. P. G. Holden took the charts and the test-boxes to the very homes of the farmers and told them what practical scientific farming would do, then he arranged a great agricultural exposition where they could bring their grains and grasses and show them to the world, competing for prizes which would make it worth their while. A few years ago not many farmers would pay five dollars per ear for seed-corn. Since they have learned what a five-dollar ear will produce, they do not hesitate to pay even fifty dollars per ear for the prize-winning corn at the corn shows and short courses.

The influence of this prize-winning seed-corn on the production of the country is already astounding. An assistant of Professor Holden sold ten ears of corn last year for two hundred and eighty dollars. The buyer secured less than ten thousand grains. It was greatly in demand and was distributed by some public-spirited men over a vast territory. President J. J. Hill, of the Great Northern Railway, finally secured almost six thousand grains of this corn and also ten ears of the finest corn ever grown in Wisconsin. This superior blood has been greatly multiplied during the season of 1909, and the "children" of these prize ears will be distributed this winter to growers all over the West to take the place of their "scrub" varieties.

Not only is the seed itself being distributed through the length and breadth of the country, but there is spreading ahead of it among the farmers an increasing faith in the paying value of tested, selected stock.

Willet M. Hays, Assistant Secretary of Agriculture, estimates at one billion dollars annually the value of segregating, multiplying and using the best strain in each species of plants and animals instead of the common kinds. So far as this production is confined to corn, so far as this vast increase in our annual wealth is concerned—if it comes from the states in the corn belt—P. G. Holden of Iowa was the evangelist who caused the great awakening and brought men to "conviction."



The Application of the Methods Holden Preached

Removal of kernels from selected seed-corn for testing . . . Careful setting of planter to guard against waste of the tested seed . . . Below, some results of Holden methods—ten ears of Yellow Dent, almost perfect in type, uniformity of kernels and germinating power

Making Sure of Seed-Corn

Professor Holden's Methods

There are two distinct phases to the problem of seed quality: One, the securing of the best type of seed by selection; the other, the testing of that seed for germinating ability. Practically every farmer practises seed selection to some extent, putting aside for seed the best types of ears that show up in the field at husking or in the crib; but it took Professor Holden to awaken them generally to the utility of the germinating test.

Testing of seed has probably been neglected because it seems at first sight such a detailed, picayunish job. As a matter of fact, two men, working systematically, can pick the requisite three kernels from nearly a thousand ears inside of two hours and a half; and the rest of the operation of testing those kernels takes no more than a couple of hours of handling at odd times. The value of the time and labor put in is not worth figuring, when it is balanced against the value of assurance against loss by poorly-germinating seed.

The requirements for germination are moisture and warmth; a seed-tester is nothing more than a device for providing those conditions. The kind that Professor Holden used in his demonstrations (shown on preceding page) is simply a shallow box, the bottom covered with damp flannel. This is marked off while dry, with indelible ink if possible, into numbered sections, the handiest arrangement being five to a row and five rows deep, making twenty-five to the box, or ten to a row and ten rows deep if the box is big enough. Each section should be, say, two inches wide by an inch and a half deep, giving room for three grains to each section.

For ordinary farm testing that number is sufficient—one from near the butt, one from the middle and one from near the tip—though of course the greater the number, the surer the test, careful corn-breeders often testing five or ten grains from each ear. The most convenient system is to lay the ears of corn out side by side on a shelf or bench, as shown in the illustration, and to number them from left to right. It is only necessary to mark down the numbers on the bench every fifth or tenth ear. The three kernels are then picked off and laid at the tip of each ear. The farmer goes down the row with the tester, placing each three kernels in the space numbered correspondingly to the ear.

The tester should be set in a kitchen or other warm room, seventy to eighty degrees Fahrenheit being preferred, though any good, steady warmth will do. The flannel should be kept damp; to prevent drying and save constant attention, a board should be laid over the box or, better still, a pane of glass. The cover should not, however, be air-tight, as seeds need oxygen for germination just as much as air and warmth.

If the seeds from any ear fail to germinate in five days it is a pretty sure chance that the ear is infertile; if all of the three germinate weakly, even, it is safest to let the hogs have that ear, for seeds will show an even weaker germination in the field than in the test-box. If you are testing a lot of shelled corn, at least ninety grains out of a hundred ought to germinate.

There are several other types of testers, about equally good, that may be handier under special circumstances. One small form is simply a dish of wet sand with another dish inverted over it. Holden himself devised a tester, very convenient when five or ten seeds are used, in which a sheet of wet flannel or blotting-paper is folded once, inclosing the seeds, and several of these "sandwiches" placed in the bottom of a cigar-box, often two layers deep. In Farm and Fireside for February 10th of this year, Mr. Logan Owen described a tester in which the grains were planted in a box of rich earth, the sections being marked off by wires stretched across the box both ways, making a net of half-inch squares at the surface of the earth. Earth and sand seed-beds have the advantage of staying moist longer, but ordinarily flannel or clean white blotting-paper will prove handier, as the whole root of the germinating seed lies out in sight, and a new lot of seeds is easily inserted in the tester.

The time to test corn is in February or March, before the spring rush begins. It is altogether the best plan to make the selection of the seed ears at this end of the winter, however, and give them special storage, rather than to select them from the crib after they have stood the winter there. There are two causes of poor germination, infertility and injury by frost. A little care will cut out this last cause entirely. The injury is done by the freezing of any trace of moisture that remains in the seed, which bursts open the miscroscopic internal cells. Remove the moisture and the corn will be as resistant to cold as so much wood. Seed-corn should either be stored out of reach of frost or, what is more economical in the end, should be dried out. In the milder parts of the country this is possible if the corn is hung or crated loosely, to allow circulation of air. In the Northern tier of states, however, the autumns are seldom long enough or dry enough to get all the moisture out of the seed before freezing weather. It may look hard enough, but it is almost sure to retain some internal moisture, which is what does the damage. The solution is the use of artificial heat. A "kiln-drying room" need be nothing but a dry shed, with a slow fire going in an old stove, just enough to keep up an even temperature between thirty-five and forty degrees. There should always be some door or window open at the same time, to let the moisture escape. Such an arrangement will mean fewer dead kernels in the seed-tester and fewer blanks in the corn rows later on.

Tested corn is too good to waste by uneven dropping. The planter should be set with mathematical exactness and, if possible, the kernels should be graded according to size, for no machine can feed uneven grains evenly. There are several good grading machines on the market, and one can do pretty good grading with a couple of sieves. One of the main things to look for in selection, and to work for in breeding, is an even, standard size of kernels on the ear, a trait which saves time, trouble and temper.

The ideal source of farm seed is the home breeding-plot, in which the corn from the best of the selected ears is planted, one ear to the row, sheltered from pollen of inferior strains. All seed-corn from the next year is selected from this superior plot, the extra-fine being planted in the breeding-plot the following year. Most farmers are satisfied to select seed every year from the fields at large. This method, followed with judgment, gives first-class results; but selection from a special plot, which in its turn was seeded with select seed, is the surer system, just as it is surer to breed animals of one superior strain, rather than select good individuals from many strains each generation.

In a good many cases the farmer is not in a position to get the pedigreed guaranteed seed of the shows, and has to put up with the home article. He can make the latter do just as well by handling it right.

The Reform of the Commission Business

By G. C. Streeter

Mr. Streeter here gives his ideas as to the remedy for the abuses so graphically depicted in his "Honest Commission Merchants—and Others." Not all readers will agree with him in all he suggests; but no one can deny that the remedy lies in one or both of the two things—Legislation and Coöperation. As we shall show, the farmers of many sections are already getting into action along these lines. And right along with the elimination of the dishonest commission merchant, such wide-awake farmers, orchardists and truckers are demanding the elimination of the dishonest shipper.—EDITOR.

THE commission business can be made as safe as banking business, and there is no reason why it should not be. When we consider that three million farmers each year ship some part of their products to commission men, we realize how vitally necessary it is that the interest of this large body of producers be safeguarded. Let us see how the commission business can be reformed.

The farmers should insist that there be laws passed requiring commission merchants to keep a uniform system of books, which should show the number of the shipments, the date, from whom received, the date of sale, the name of the purchaser and the price; a transcript of his entry should be sent immediately to the shipper; these books should be subject at all times to examination by any shipper and to the inspection of an official appointed for that purpose; there should be the same punishment prescribed for the falsification of a commission man's books that is now prescribed for the falsification of banker's books.

Is there any reason why this business should be the subject of governmental regulation and restrictions? I believe that there is only one other business where governmental regulations and restrictions are as imperatively necessary as in the commission business, and that is in the banking business. In the good old days of the Red Dog Banks, when anybody could establish a bank, the man who had money to deposit took it to the bank and handed it over to the banker's tender mercies. He knew nothing of the honesty of the banker, of the soundness of his business methods or of his financial responsibility. He knew nothing about what kind of money he was going to get back in exchange for the good money deposited. You all know the history of the Red Dog Banks. The fraud and swindling of that banking system was so stupendous that the people insisted that the government regulate and control the banks and the national currency. It was a case where governmental interference was absolutely necessary to protect the body of the people. The commission business is strikingly similar. The growers produce a product and then hand it over to the tender mercies of the commission man; they do not know what grade he will put on it, nor how much he will give them for it, whether he is financially responsible or anything else. They are wholly and absolutely at the mercy of the commission man, and experience has proved that in too many cases he is unscrupulous. Since the grower is absolutely at the mercy of the buyer and he has no adequate means of protecting himself or of ascertaining the honesty or reliability of the merchant, it becomes the duty of the government to see that the defenseless growers are protected. The illegal and dishonest methods of the commission man undoubtedly cost the farmers of this country more than any dishonest system of banking ever cost and it is a subject of as much importance to the farmers to have the commission business regulated and safeguarded by governmental supervision as it is to have the banks so controlled.

Every farmer who wishes an adequate return for his product should write to his representatives in both Congress and the State Legislature, demanding that the government shall supervise and control the methods of the commission man. Every farmers' organization should pass resolutions demanding action on this important matter, and they should see that their requests and their protests are kept continuously before their political representatives until they secure reform. This is not a question of politics. It is a question of economics and business, and it is the paramount and important matter now before the country people. When the farmers, orchardists and truck workers of this country rise and protest against present conditions and demand that their interests be properly safeguarded, the commission business will be put on such a sound and honest basis that it will return to the farmer a just and adequate return for the product that he creates.

Farmers Should Reform Themselves

Another method by which the farmers can secure better prices from the commission men is by more careful grading of their products and the establishment of brands. Any farmer who is grading fruit or truck for the market should see that it is carefully and uniformly packed and that every package bears his brand.

A brand should stand for quality, so that when any one purchases goods so branded they may be certain of the quality of the contents of the package.

One of the reasons that farmers suffer from the machinations of the commission men is that they do not establish and maintain a high standard of quality in their shipments. The farmers suffer through the dishonesty of the farmers. It is neither a coincidence nor a law of Nature that apples, peaches and pears grow downward smaller through the package. Many farmers think they have done a smart trick when they fill a barrel two thirds full of culls and top off with sound fine fruit.

The commission man knows these tricks. He simply pays them the price of the worst of the contents for all of the fruit, and the chances are that he gives other barrels or crates of honestly-packed fruit the same grade and price.

Ship only sound, well-selected, carefully-sorted fruit under your brand and make that brand stand for quality.

This naturally leads us to one of the drawbacks to establishing a brand of fruit.

Inasmuch as any one farmer makes comparatively few shipments, it is rather difficult to establish the reputation for that particular brand, because it is not common enough to attract much attention. But where many farmers in an entire section ship uniformly good fruit under a common brand, that brand soon becomes well known.

This is a strong argument in favor of the collective grading and marketing of all the products grown in a certain locality. The most powerful influence toward better prices for the farmers is collective grading and shipment of fruit and produce. Whenever and wherever the farmers of any section unite and pool their products for collective grading and marketing, establish brands and maintain quality, they invariably secure better prices.

It is only a question of a very short time before the fruit and truck growers in different sections will be forced to unite and establish collective and coöperative agencies for grading, packing and marketing their fruit. Wherever the system has been tried under proper management it has proved highly successful.

A few years ago the potato-growers of Tyler, Texas, formed a coöperative marketing association. The potatoes were delivered at the association packing-house, where they were sorted, graded, packed and shipped. Every package bore the association brand, and that brand was made to stand for quality and careful handling. They established a high reputation for a thoroughly good product and consequently that product was in demand in every market. The result was that nine tenths of the crop was sold at prices from twenty-five to forty cents per barrel above the regular market quotations and were sold f. o. b. Tyler, Texas. They avoided the risk of shipping to unreliable commission men in market centers, and therefore stood no chance of being swindled. When a car-load of potatoes was shipped it had already been sold at an agreed-upon price, subject to sight draft.

This coöperative association increased the profits of its members, and saved them the losses and vexations incident to individual shipments to commission houses.

The Old Solution of the Middle-Man Problem—Marketing Direct to City Housewives

Possibilities of Coöperation—This Car-Load of Milk-Cans is One of Five Returned Nightly to Its Members by a Chicago Dairymen's Association

Coöperative Selling

Some seventeen years ago the peach-growers of Catawba Island, Ohio, became greatly dissatisfied with the methods then in vogue in marketing their peaches. They were satisfied that the prices were too low, that the grading was dishonest and that the commission men were entirely unreliable. Therefore they formed a coöperative association for the packing and shipment of their peach crop, hoping thereby to secure adequate returns for their products and to minimize the labors, vexations and losses incurred in selling fruit through commission firms.

They built a packing-house and employed a competent superintendent to take full charge of the grading and marketing of their product. They were careful to establish uniform grades, to ship in uniform packages under a common brand. They have made that brand of peaches stand for quality and grade in every market. It is the duty of their superintendent to keep in touch with market conditions and to endeavor to sell the crop in the market that will pay the best prices. They have succeeded in establishing so high a reputation for their product that Gypsum, the shipping point, has become one of the great peach markets of the country.

This system relieves the grower of all the trouble of packing, grading and the losses and vexations that invariably arise from marketing fruit through commission men.

Each year they market from fifty thousand to one hundred thousand bushels of peaches at prices that are highly remunerative to the peach-growers. After seventeen years of experience in coöperative marketing and handling of the product the peach-growers of Catawba Island pronounce the enterprise a huge success, and to-day the Gypsum Fruit Company is a monument to successful coöperative enterprise in the packing, shipping and marketing of perhaps the most perishable article that the fruit-growers produce.

There is no good reason why the fruit growers of other sections should not combine and pursue with equal success a similar policy.

To-day the greatest weakness of the American farmer is the lack of intelligent coöperation. This is an age of coöperative enterprise. The individual is too small a factor to obtain recognition or justice single-handed, but when combined with his friends and neighbors into a coöperative association he becomes a strong and dominant factor in the sale of his products.

Sales Inspectors Needed

There is another reform in the commission business that will protect shippers in their dealings with the commission men. That is the appointing of inspectors to supervise the grading of products at the point of sale. No commission man should be allowed to sell goods as seconds or thirds or spoiled without the judgment of an unbiased inspector. The farmer should provide their own inspectors, or should insist that there be passed a law forbidding commission men to degrade a shipment without submitting it to a public inspector. This does not mean the inspection of every package of produce or fruit at the point of sale. It simply means the inspection of such shipments that are to be reported and sold below the grade called for by the shipper.

If a commission merchant receives a shipment of berries or melons or any other fruit or produce that has been damaged or spoiled in transit, before he can throw it away or sell it for what it will bring he should be obliged to call in a public inspector to pass upon the condition of that shipment, or agree as to the grade with the representative of the shipper.

When growers demand the passage of proper legislation to safeguard their rights and refuse to ship to any market where such safeguards are not provided they can secure this very necessary protection.

The most effective reforms for the evils of the commission business can be secured by the farmers themselves if they will unitedly demand and insist upon reformatory measures. Organized protest and demand will accomplish success if the farmers will take an intelligent view of the situation and combine and work to secure the much needed reforms and safeguards. And the farmers should as unitedly frown upon the dishonest farmer, as intelligent and honest commission should reprobate the swindlers among them.

Concrete Construction in Winter

Possibilities and Precautions—By A. A. Houghton

With careful handling concrete may be successfully used where the temperature is close to the freezing point. In fact, several large buildings have been constructed of reinforced concrete in the winter, with the temperature at and below freezing all the time; these results were highly satisfactory, but as above stated ample precautions must be taken.

In the molding of small articles that may be done inside some building, where a fire is maintained and all ingredients of the mix are properly warmed and the product kept inside until the initial "set" or hardening is complete, there is not the least danger.

Concrete varies in the initial set with the brand of Portland cement used and the conditions of the atmosphere at the time of placing. In warm dry weather this first or initial set will take place within thirty minutes to one and one half hours; in cold and wet weather this varies to as long as four hours. After the initial set has taken place in the concrete placed, it is less susceptible to atmospheric changes, which is a fact that must largely enter into concrete construction in freezing weather.

The main point is to maintain the temperature of the concrete at about sixty-five to seventy-five degrees Fahrenheit for the first four hours, when having secured its initial set the work may be gradually exposed to the weather; although in very cold weather as a further precaution the work may be kept covered for twenty to twenty-eight days, thus avoiding all risk from freezing.

In handling concrete with the temperature at the freezing point or below use the minimum amount of water with the mix; this means, however, that each particle of the material must be thoroughly damp, otherwise the concrete will not have any density or strength and will scale or break off in pieces. A safe rule is to press some of the mixture in the palm of the hand and when it will retain the shape thus given without crumbling when the fingers are unfolded the mix is wet enough for work that is to be well tamped. The essential point is to thoroughly dampen every particle of the mixture, but not to use any surplus moisture.

The use of calcium chloride, which is an anhydrous salt, in the water used for the mixing, using it in the proportion of two per cent to the cement used, is helpful; this is much more satisfactory than common salt in lowering the freezing point of the mixture, and as a less quantity is required it will not be as apt to injure the setting of the cement. Where salt is used the usual amount is ten to twelve pounds to each barrel of cement used, the salt being mixed with the water and so employed.

The material may be warmed before mixing by placing the gravel in a circular heap with a fire in the center and thus heating it so that it will remain at a normal temperature while the concrete is setting; the heat from the sand and stone also aids in evaporating the water in the concrete and in that manner hastens the setting of the mass, so that it will be beyond the danger point before the temperature lowers to freezing.

Solidly tamping the concrete is of great value, for by so compressing the density of the mass the water is excluded. The chief danger to concrete construction in freezing weather is the moisture which freezes and thus expands the concrete, causing it to scale off and preventing a secure bonding between the different layers; when this is overcome the concrete is fully as strong as when made under more favorable conditions.

When building a cellar floor, or a floor in any outbuilding, the employing of a fire in the same room, with the doors and windows closed, is usually ample to prevent freezing until the concrete has hardened sufficiently so as not to be injured.

Farm Engineering Building, Wisconsin Agricultural College—Walls Faced With Brick on a Framework of Reinforced Concrete. The Latter Material Was Poured in December; Straw Coverings and Artificial Heat Were Used and the Forms Left Till Spring

Many prefer to mix the cement with the water into a semi-liquid mass and into this stir the warm sand and stone. This is possible when but a few pails of mortar are mixed at a time or when the aggregate is composed of screened sand only; but when gravel is used this method is likely to result in a poor mix, as the stirring often works all the larger pebbles to the bottom, and again, it is very difficult to distribute the cement evenly so as to coat each particle of the aggregate. The best and safest method is to dry mix the sand and stone with the cement, in the ordinary manner, then wet the mass with just enough water to thoroughly dampen same; the water may be warmed before using as well as the sand and stone.

When constructing outside work, such as walls, foundations etc., it is of great utility to cover the work with straw, sawdust, canvas shields or even manure until safely beyond the initial set which under usual conditions in the Northern states will make construction safe.

The work is placed as rapidly as possible, with the usual precautions to maintain the temperature above the freezing point, as described above, and is then covered at once. By leaving this covering for several days, if the job is finished, the work will be allowed to gradually lower its temperature, as it hardens or dries so that the frost will not have any effect upon it.

A valuable idea in this line was successfully tested in the building of a wall for a basement barn; the forms were constructed and the wall built in sections, these sections of wall being placed as rapidly as possible and at once covered with binder and stack tarpaulins. Under these was placed a gas-pipe with quarter-inch holes drilled in same eight inches apart; this pipe was connected to a farm engine and steam forced up under the tarpaulins so that it would circulate all around the wall; after twelve hours steaming the covering was allowed to remain overnight and was then removed without the least injury to the wall. The curing of concrete by moist steam is in operation in many large concrete-block plants and the above system may be employed by the farmer in constructing his work during the leisure days of winter.

As a safeguard in freezing weather the concrete should be made from one fourth to one third richer in cement; this must, however, not be overdone, for when you make the mixture too rich with cement you are sacrificing the strength of your concrete. This is a point to which many failures are directly traceable. The mix must be correctly proportioned and not operated on the idea that if "little is good, more is better," so the one third addition of cement to the concrete, over what is specified for ordinary weather, should not be exceeded.

For instance, where you have been using for summer work the ordinary proportions of one part by measure of cement to six parts of sand and gravel, simply increase for your winter work by using one and one third measures of cement to every six measures of sand and gravel. Materials are always best mixed by volume, using a pail or a box form for a measure, as measurement by weight is unreliable, the weight of Portland cement varying from ninety to one hundred pounds per cubic foot, depending upon the fineness of same, while sand and gravel will vary from eighty to one hundred and six pounds per cubic foot depending not only on the size of the particles, but upon the density and character of the stone or pebbles mixed with the sand.

The suggestions given above are in accordance with many tests to determine the safety point in concrete construction during freezing weather, and by observing the precautions given there is no reason why you should not be able to employ concrete as a building material in the winter months.

System *Versus* Guesswork

Business Methods for Country Practice—By M. G. Rambo

In the old, old school-books our grandparents studied, the lessons were given in the form of questions and answers. There was one question and its answer that impressed itself upon my childish mind as I rummaged some old books of this kind long ago. They were:

"What is science?"
"Science is knowledge reduced to a system."

Later educational advancement has produced no better answer than that. It means simply that science is systematic, workable knowledge. Anything to be practicable and workable must be systematic.

A farm is simply so much potentiality, just as a steam-engine with its fuel and water is. A man can by no means be an engineer until he has some knowledge of the mechanism of the engine, and of the potential force in the coal, and of how it is liberated through heat and steam. Shall we call him a farmer who has no systematic knowledge of the land he occupies, and of the means of securing the greatest returns from it in crops and stock? He may be a laborer, a tiller of the soil, a tenant of the land, but certainly not a farmer in the best sense of that term. An epigrammatic phrase recently put it tersely and well: "A man may farm and farm, and not be much of a farmer."

Not only does a farmer need a systematic knowledge of his business, but he needs to have his business thoroughly systematized. A striking thing in most farming communities is the number of farms that seem to be run without any system at all. The wonder is that the number of failures among farmers is not a very great deal greater. Any other business conducted in such a loose-ended way ends in bankruptcy.

How few farmers have a place for everything and keep everything in its place. The machinery and tools that equip a modern farm of the most modest acreage represent a large sum of money, and yet on very many farms these things are scattered about harum-scarum and allowed to depreciate at an alarming rate. Just a few days ago, in a prosperous community in northern Iowa, I passed a meadow where at least one hundred and fifty dollars' worth of machinery had been left standing several months exposed to sun and rain, and in all likelihood it will remain there until haying time next season.

A great many have no systematic plans for their work, taking hold of whatever happens to be most pressing from day to day. A farm hand who worked for a season on one man's farm declared that he spent almost as much time changing from one job to another as he did in the actual work.

Too few farmers are able to put their fingers on that department of their farms which is the most profitable. They work as though hoodwinked, utterly in the dark as to the details, and only "sensing" the standing of their business in some obscure general way.

How many farmers there are who have no means of knowing for a certainty which cows of their dairy herds pay for their keep. They feed them and milk them, trusting to luck for the reward for their expense and labor. Many keep more horses than they have any use for. At the present market value of all sorts of feed-stuffs it does not take long for even a pretty good animal to "eat its head off" if it is not engaged in some useful service.

Too few farmers have a knowledge of the quality of the seed they use, other than what they can get from the looks of it. Many a lot of fine plump oats is so low in vitality as to be about as useless for planting as the old time shoe-peg imitation. The farmer that figures ahead sees not only that he can afford to use high-grade seed but that he cannot afford to use any other kind.

It is true that you cannot farm by ledger. The farmer's business is not comparable to the city man's, in which every item of gain or loss can be figured from a written slip, and every department is in charge of a specialist. The farmer is dealing with the shifting items that enter into the production of living things; and he has to be laborer, salesman, superintendent, buyer and bookkeeper all in one. For all that, there are vast chances for business system in farming. It is possible to keep an account with every department of the farm, and when, for example, a crop is sold off, to charge up to it not only the value of the seed, labor and freight, but to work out and debit it with the value of fertilizer consumed and fertility removed. The accounting on a farm may be less exact and more complex than that of a retail shoe shop, for instance; but the mastery of it is not beyond the powers of average good American brains, and the practice of it pays.

No other business in the world would stand the amount of mismanagement and non-management the farmer's does. It is time for the farmers to study modern business methods, and put them in practice. This is a time of wonderful prosperity on the farm, but greater things are ahead if the farmer will make systematic use of his opportunities.

New Saws and Fresh Filings

Big fortunes have been made on small farms.

Knowledge without practice makes but half a farmer.

A straight line is the shortest distance between the crop and the market.

Farming on a big scale—that is, weighing your stuff before hauling to market—is a splendid idea.

No man can get along without running expenses, but he can at least prevent them from running too fast.

Although there may be nothing new under the sun, the farmer continues to discover something about his work that he has not known before.

Wm. J. Burtscher.

Holiday Poultry Marketing

Chickens

THE holiday season is the time when fancy-marketing methods pay richly in the poultry trade. For the three great American feast days, Thanksgiving, Christmas and New Year's, buyers consider quality first and price afterward. The winter season, too, brings with it a let-up of farm duties, so that the farmer can profitably take the time to dress his poultry in the attractive shape that is necessary to catch the full benefit of the holiday trade.

For winter sale I aim to grow or buy up chickens that dress from six to ten pounds. These weights can be secured only by keeping large breeds, such as Brahmas, Cochins and Orpingtons, which are fairly good winter layers as well as meat-producers. From the time the chicks are hatched, they are kept in good condition and growing constantly. As winter approaches, the grain ration, consisting mostly of corn, is increased. A hot corn-mash is fed in the morning, and all the grain the birds will eat at noon and night. It takes about a month of this feeding to get the fowls in prime condition.

The large markets demand dry-picked poultry, as it keeps much longer than scalded stock. The bird's head is held in the left hand and a penknife drawn lightly across the veins and arteries in the back of the mouth and then the brain pierced through the little groove in the upper bill; this produces instant death and the feathers are released and can be dry picked readily. All but capons are picked clean. When picking is over, the carcasses are put in cold water to remove the animal heat and to clean the skin. This makes the meat keep better and gives the poultry a more attractive appearance. It is better for three persons to work together in dressing poultry. One does the killing and picks the neck and breast, the others each work on a wing. The sooner the feathers are off, the better the job of dressing.

Pullets are always kept by themselves while fattening. A common mistake made by poultrymen is to try to fatten chickens that have not reached maturity. Even birds of the same age do not fatten alike; each one should be examined before killing, and if not in prime condition should be culled to go over a second course of corn-meal. Fatten the birds and thus secure the top market prices.

C. A. UMOSELLE.

Ducks

PEKIN ducks gain in weight less rapidly after they are eleven or twelve weeks old; therefore, it is not wise to hold them much beyond that age, unless market conditions are unfavorable.

Ducks, both old and young, respond readily to generous feeding, and it is seldom necessary to begin fattening until ten days or two weeks before marketing, providing the ducks are in fair condition at the start. Feed should be given three or four times a day—all they will eat. Provide a variety; if confined to one kind of feed they will lose their appetite. A duck's food must not be too highly concentrated. Therefore it is a good plan to use plenty of cooked vegetables along with the ground grain. Don't feed whole grain. Bran should play an important part; equal parts corn-meal and bran moistened with skim-milk or buttermilk and mixed with boiled potatoes or pumpkins will be found satisfactory. The reason for moistening the meal before adding to the cooked vegetable is that it prevents the mixture becoming tough and gummy. If food is sticky it clogs in the ducks' beaks. When vegetables are not at hand, we use two parts corn-meal, one part bran and one part fine wheat-middlings or second flour. Charcoal (powdered) is added once or twice a day and a little salt occasionally.

Skim-milk is used to moisten the feed because it aids in the fattening process, but it is never given as a drink. Clear water, with the chill removed, is given with every meal. Ducks rinse their beaks often while eating. Chopped raw cabbage, apple parings, etc., are always relished. Lastly don't forget grit.

Live ducks should not be shipped to distant markets. They lose weight rapidly in transit. There are several ways of dressing ducks and every one should study the local demands. Some of the large markets will not handle ducks that have been scalded, others prefer this mode of dressing. Nearly all of the Eastern markets want dry-picked ducks, undrawn, with heads intact Western markets as a rule prefer them drawn. It takes an expert to slaughter ducks by hanging them up and inserting a sharp knife in the throat. The old way is much easier. If they are to be scalded, wait until there is no sign of life, then plunge the ducks into boiling water; wrap in a cloth, let remain for a few minutes and then pick. Draw carefully and place in cold water at once. Let remain several hours.

ANNA WADE G. [illegible]GHER.

Capons

IN PREPARING capons for market the birds should go without food for twelve hours before they are killed. This will insure that the birds will be perfectly empty and in best condition for dressing. The fowls should be suspended by the feet in a place where everything is handy, best over an old box which can be used to catch the blood and feathers, and a weight of two or three pounds

Buff Cochin Capon—Note Characteristic Lack of Comb and Spurs and Loose Feathering

should be suspended on a string to a hook which is placed in the lower jaw of the bird after it has been killed. The weight assists in keeping the bird still and in stretching it out so that it can be picked easier.

Capons are killed according to what is called the French method. There is a knife made especially for the work, called the French killing-knife, but any sharp, thin knife will do the work. Seize the head of the fowl, open its mouth and running the knife through the back part of the throat cut the veins and arteries, the jugulars and carotids; then run the knife through the roof of the mouth into the brain.

Capons are always picked dry, and so distinctively picked that a person looking for capons will be attracted by them at his first glance around the market; that is, they are picked only on the body, the upper neck feathers, tail and wing feathers and a few on the lower part of the drum-stick being left. The feet are generally left on capons, and the head always, as it is one of the distinguishing marks.

To dress the capon, cut carefully around the vent and draw out the intestines, cutting them off at the gizzard. Leave the fat in the body cavity or place it about the opening made.

With capons it is not so much the age of the fowls that the buyer cares about as the weight.

EDWY B. REID.

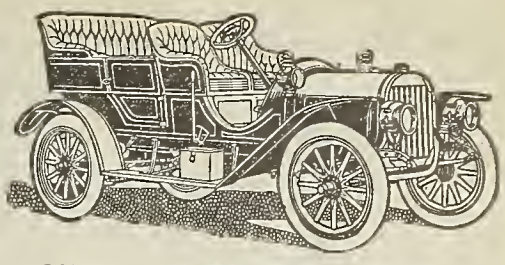
Turkeys

A TURKEY is as much an essential part of the annual Thanksgiving celebration as liberty is of the life of the people who originated and yearly proclaim the day. To satisfy the holiday demand for turkeys, young ones alone fill the requirements. Their rapidly-grown, quickly-fatted flesh is sweet and tender, and if grown on the range it has a flavor which cannot otherwise be obtained. They should, however, be fed all the grain they will eat before leaving for the range and when returning at night. The youngsters get enough exercise in the open to promote digestion while securing the fresh vegetable and animal food needed to balance their ration. Corn and wheat make the best fattening foods.

Before killing, the stock should be kept eighteen hours in a clean, airy pen and given no food. They may have water up to eight hours of killing, for water gives a healthy look to the skin and cleanses the digestive organs of matter which would become sour and taint the flesh. A short stout stick, a long, sharp, steel knife and a strong arm and quick hand are required for the operation of killing. The bird should be suspended head downward, its feet in a noose of strong cord, far enough from the walls of the house and other objects so that it cannot injure its wings when it struggles. After stunning by dealing a sharp blow at the base of the skull with the stick, pass the left arm around the body of the turkey under the wings, holding the side of the breast toward you. Grasp the head in the left hand and open the bill with thumb and forefinger. Thrust the knife blade in through the mouth to just back of the brain and make a sharp cut directly across the roof of the mouth. Keep firm hold with the left arm and hand and begin at once to remove the feathers with the right hand, beginning at the juncture of head and neck and working up over the breast and body. Then give the bird a turn which presents the back to the operator, and begin at the neck or between the wings and pluck toward the tail. The short feathers of wings, tail shank and neck are removed next and the long feathers of the wings and tail, if removed at all, are plucked last. Usually the feathers of the last joint of each wing are left on and are much appreciated by the purchaser to use about the kitchen. The skin of a turkey is less likely to be torn than that of a chicken or duck, but one should go carefully in removing the feathers. The thumb and forefinger do most of the work by firmly grasping a few feathers and removing them by a quick jerk, which begins upward toward the tail and terminates outward. Careful handling after picking is very desirable, for a bruise will cause discoloration detrimental to the looks of the bird.

After picking, the birds should be hung in the open air out of the sun, if the weather is cool, long enough to allow the escape of all animal heat, but not long enough to freeze. After drawing, their feet and head should be washed clean and wiped dry and all blood removed from the throat and mouth. If care is used in killing and handling, it will not be necessary to wash the body of the bird, and the skin will retain its bright yellow appearance better than if dampened or cooled in water instead of air.

A. E. VANDERVORT.



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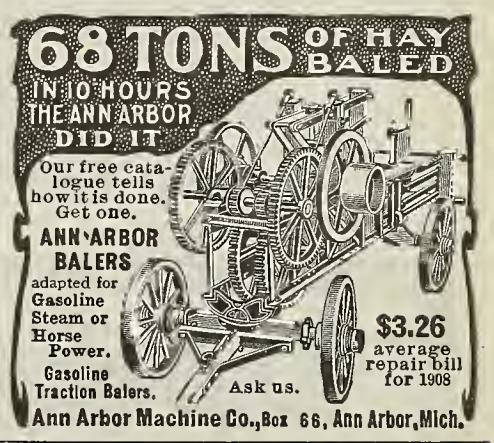

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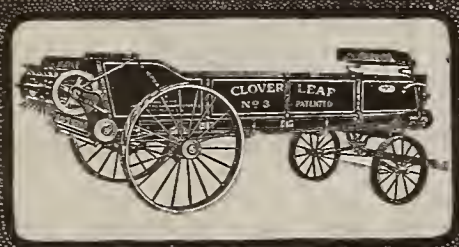

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Farm Notes

The Fountain of Farm Strength

EVERYTHING that gives something must first receive something.

In almost everything we know this to be true, and we bow to the law and feed the calf or the pig or the lamb which we expect to grow into money some day. But it has taken us a long time to fully understand that the same rule applies to the soil of our farms that holds good with living things.

Now we are awaking to understand that we have lost valuable time and a good share of the goodness of our farms by the system of "always taking out and never putting in." The bottom of the meal-tub is just in sight, as Poor Richard said it surely would be. Now and then we hear men say that it is not true that our farms are losing their fertility. That sounds well and we would feel real good over it if we did not know when we stop to think about it that few farmers we know are really raising anything like the crops they used to.

But let that go now. The thing we want to know is how to keep our farms up. There is no better way in my judgment than to keep more stock. Every farm should keep some kind of horned stock, right up to the limit of possibility. Various plans have been tried as a substitute for this, some with fair success. Not far from my own place there is a farm on which commercial fertilizer has been used a good many years. Not long ago the owner told me, however, that they had to use more and more every year. It is a good way, but it is an expensive way and who would dare to say that it is really a permanent way of putting fertility back into the soil?

But cows do provide a good and reliable form of farm fertility. It is the natural way of feeding land. The droppings of cows come straight from the products of the soil. All the elements of the hay and the grain fed remain in the manure—in not greatly decreased proportions—particularly if the liquid part be saved as it should be. These go back to feed the land and so keep the equilibrium good.

Plowing green crops under is another way of feeding land. This is a good thing as a complement to other forms of fertilizer, but not as a substitute for them. Some green manure added to some barn-yard manure, and perhaps some commercial fertilizer, makes a desirable combination. But the real source of farm soil strength is in stock.

Right now is a good time to think of this. Now we may buy stock at a more reasonable figure than we can later. Some parts of the country have had a light crop of hay this year. Grain is so high-priced that men do not like to think of buying it. The man who has plenty of hay will therefore do well to invest in such stock as he may be able to find not too far away. This may be fed through the winter, thus turning the farm hay, corn and other products into the best possible form of fertilizer to be put back on the land for days to come.

In stock-keeping may be found the fountain of farm strength.

E. L. VINCENT.

Mixing of Corn

CORN will mix, or cross breed, much easier and much farther than most farmers imagine. The mixture shows up the same year the cross is made, which is noticeable in very few other plants.

We are often asked how far corn will mix; this depends wholly on conditions. The pollen is carried mostly by the wind. This pollen is dust-like and oftentimes flies in clouds like dust. When no woods or other obstacle is in the way and where the wind has a fair sweep, the pollen is often carried a quarter of a mile, sometimes farther; we have found most of the mixing takes place at distances less than an eighth of a mile.

White and yellow corn mix more readily than the red varieties.

Mixed corn is generally easily distinguished by the colored kernels; however, some kernels are very slightly colored, making it difficult to detect the mixture. In yellow crossed on white, the grain is (usually) a pale yellow, cap usually white, and is more easily detected after the ears are shelled; but with white on yellow the opposite is true, the mixed kernel shows a white cap and often little change in color below the cap. Thus it is more easily detected before shelling. In either case when the mixed kernels are picked out the balance of the ear is pure.

I am often asked by men who have a field of white corn which is isolated from any other field, being perhaps one half to one mile from other corn, why they occasionally find a mixed kernel in a pure ear. My only explanation is, some insect that has been in a yellow field came flying through the white corn and striking a silk, which was ready to receive pollen, fertilized it and made the mixed kernel. Curious, isn't it, this breeding of plants?

OMER R. ABRAHAM.

Melilotus Indorsed Again

SWEET clover (melilotus) meets the approval of every farmer in this neighborhood as a valuable pasture and a soil-restorer. For sheep, cattle and horses it is hard to equal, and its blossoms are also fine for bees. A neighbor who has been in the bee business thirty years says his bees produced one hundred and fifty pounds of honey in one season from one stand. This may seem an unqualified statement, but it is well vouched for.

This clover thrives on some of the poorest soils here in southern Indiana. Nothing surpasses it for bringing back fertility to the soil in the shortest time. The roots of the plant the second year go to a great depth, making them a high-class fertilizer. On the death of the plant at the close of the second year the roots decay and the fields can be plowed at this time or come again from the seed.

If threshed, sweet clover gives fifteen bushels of seed an acre, now selling at three to six dollars a bushel. If the plants are plowed under, my experience has been that the land after two or four years is left in shape to produce fifteen hundred pounds of tobacco to the acre of the finest quality. I believe every farmer who owns hill ground or land that is not suitable for alfalfa will be justified in giving this clover a trial.

J. R. CRAIGMYLE.

Transplanting Evergreens

MANY people have experienced the difficulty of transplanting evergreens. Few, if any, trees are harder to transplant successfully, especially after they have come to several years' growth. Often there is a demand for one or more of these trees for newly-made lawns, and as most evergreens are of slow growth, one has to wait for years before they are showy, if he has to use the smaller and easily-transplanted evergreens.

A neighbor of mine wished to transplant several well-developed evergreens from his farm to his new town home. Accordingly, that fall, after the trees had ceased growing and before the ground was frozen by the winter's cold, he selected the trees he desired. About each of these he dug a trench something like eighteen inches from the tree, and deep enough so that he could easily uproot it with a considerable quantity of earth attached to the roots, and left it standing in its place. In midwinter, when the earth was frozen hard, he took the trees out with all the earth that would adhere to the roots, and placed them in the places he had already prepared for them upon his lawn. When spring came the trees resumed their growth as though nothing had happened to them.

So successful was his effort that he found a demand for his trees among his neighbors and many others in the city, and for several years he did a good business transplanting evergreens at from ten to twenty-five dollars apiece.

M. G. RAMBO.

Agricultural News-Notes

The four leading commercial-fertilizer-using states are Georgia, South Carolina, North Carolina and Virginia. The consumption of them in Georgia, where their general use was first begun, was in 1899 valued at almost six million dollars.

The National Paint, Oil and Varnish Association which met in Philadelphia, October 13th, have indorsed the bill to come before the next Congress which provides for a parcels post. This action is sure to meet the hearty approval of all agricultural organizations.

The demand for phosphate rock has become so great that Secretary Ballinger of the Interior Department is holding all the known acres of public phosphate lands until the next Congress takes official action respecting them. In the interest of the present and succeeding generations the general government should retain a supervising interest on all our public lands where phosphate rock, beds of niter or sources of potash are known to exist. *

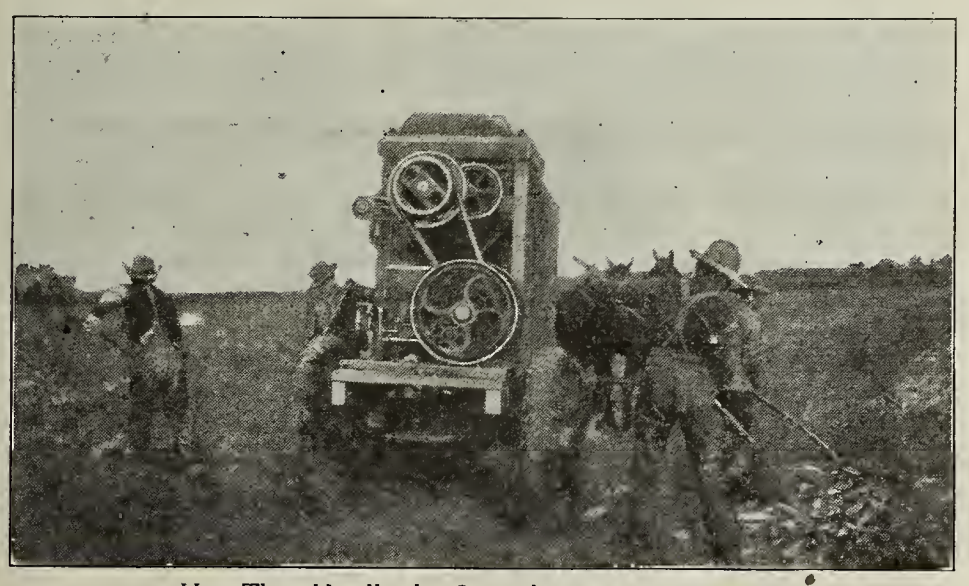
Farm Notes

Threshing Cucumbers

THE song of the cucumber-thresher is heard in the land of eastern Colorado from the first of October until the first of December. This is the harvest-time for the seed-houses and the farmers who grow this vegetable. Many hundred acres of irrigated land are planted in cucumbers year after year. A great many cut and deliver the crop to the factories when the cucumbers are small, but the expense of gathering is considerable. So a goodly number of farmers prefer to grow them only for seed.

Good money is being made out of this business, as they bring from one to two dollars per pound. A fairly large crop of cucumbers will yield the farmer a hundred and fifty dollars an acre, netting him something over a hundred dollars.

When the cucumbers are well developed, which is generally about the first of October, they are gathered into piles, leaving space between the rows of heaps for the thresher to pass. At threshing-time the machine is hauled to the field and stopped between a couple of piles of cucumbers. A two-horse gasolene "chuck, chucking" at the rear of the machine operates the crusher. Four men using four-tined forks feed the crusher with cucumbers, which are mashed between two rollers as soon as they fall into the hopper, they then pass into the cylindrical seeder, which lies horizontally and revolves slowly. It is inclosed in a box-like arrangement so that the seed may not be flirted out on the ground. The outer surface of the seeder cylinder is wire netting with meshes large enough to permit the seed to pass through. The front end of the cylinder is lower than the rear, so the crushed cucumbers work slowly forward until they finally drop out of the cylinder at the front of the thresher. The seeds and juice pass through the meshes into a vat beneath.



How They Handle the Cucumber Crop in Colorado

As soon as the vat is filled with seed, a team driven by a boy draws a low sled box to the spout at the side of thresher which is opened, allowing seed and juice to run into the box, in which it is hauled away. The liquid portion is strained off and the seeds are washed of all juice, pulp and dirt, then spread on screening wire to dry.

After drying it is sold by weight to a seedsman at the current price. Four good pitchers and a perfect-running machine can thresh from eight to ten acres of cucumbers each day.

Cultivation on this scale is profitable in any of the moderately mild regions of the country, where a rich and moderately light soil is found within reasonable shipping distance of the seed markets or truck regions. The land should be well fertilized and thoroughly worked in the spring. W. D. NEALE.

Apply Manure to the Grass Lands

THE best place to apply manure is on grass-lands, either meadows or pastures, and for two or three reasons. It is easily hauled on the grass. By stimulating richer growth of grass, it increases the vegetable matter in the soil by the amount of this additional growth. So to speak, we grow more manure.

Moreover, there is no appreciable leaching loss of nitrogen, winter or summer, from manured grass-lands. Even on corn-lands manure suffers no nitrogen loss during the winter unless the land is very rolling; for the conversion of nitrogen into nitrates does not go on at a low temperature. When it begins to warm up, however, nitrification commences. The corn-plant can use very little of this prepared nitrogen until it is at least waist-high; and if during this period there are heavy rains, half of the nitrogen in the manure is lost forever. But on grass-lands the roots would have taken it up as fast as it became available.

To be sure, the value of manure is not wholly in the nitrogen, nor in the potassium and phosphorus which it contains, but is partly in the humus by which it puts our land in proper physical condition and increases its water-holding capacity. For this reason manure applied to corn-land would have considerable value in any case, but when we go to the trouble of hauling manure we want all there is in it. So it is better to put it on pasture or meadow lands and wait for the reward until the land is plowed up again and put in crop. If the plowing up is done in the fall no waste occurs. Between the opening of spring and the planting of the corn there may be some waste, but not much because of the fact that grass-roots are slow to decay and therefore the formation of nitrates is delayed until the corn is about ready to absorb them. WM. H. UNDERWOOD.

Rustless Tools

IT IS only with good winter storage and some care that farm tools can come out bright in the spring. Estimates of tools, left to rust out from exposure, rather than worn out by use, run up into the hundreds of thousands of dollars annually; that is why the manufacturer is getting wealthier year by year.

True, it takes quite a building to house the implements and machinery of an ordinary farm, but, like stacking out hay, the waste will soon pay for a shelter, and the sooner the shelter is made and the tools put in, the quicker the farmer begins to reap a toll that usually goes to the manufacturer.

Axle-grease or machine-oil applied to the plow-shovels and mold-boards of breaking-plows, disks, and the like, prevents their rusting and saves many a weary hour when the spring work sets in, in the way of scouring.

"Letting the rust wear off" in the spring is a profitless practice. It means unnecessary wear on the implement, and extra work on the part of the horses and the man running the machine.

OMER R. ABRAHAM.

Frosty Bits

When out in the cold or among gossips keep your mouth shut.

Save the old shingles, corn-cobs and small pine-knots for handy kindling on cold mornings.

I have paid a dollar a barrel for cabbage to hang up for my hens at times, but then they paid me back in eggs.

Turn back the trash
In available ash
For the sake of barren land;
Turn under weeds
Which the poor soil needs,
And your crops will thicker stand.

Last spring, when grubbing, I cut up all the grubs—locust, locust roots and green pine—and piled them to cure for stove-wood instead of burning them then and there as most farmers do. Just now they are blazing merrily, and I have been largely saved the time one usually loses getting winter's wood. C. E. DAVIS.

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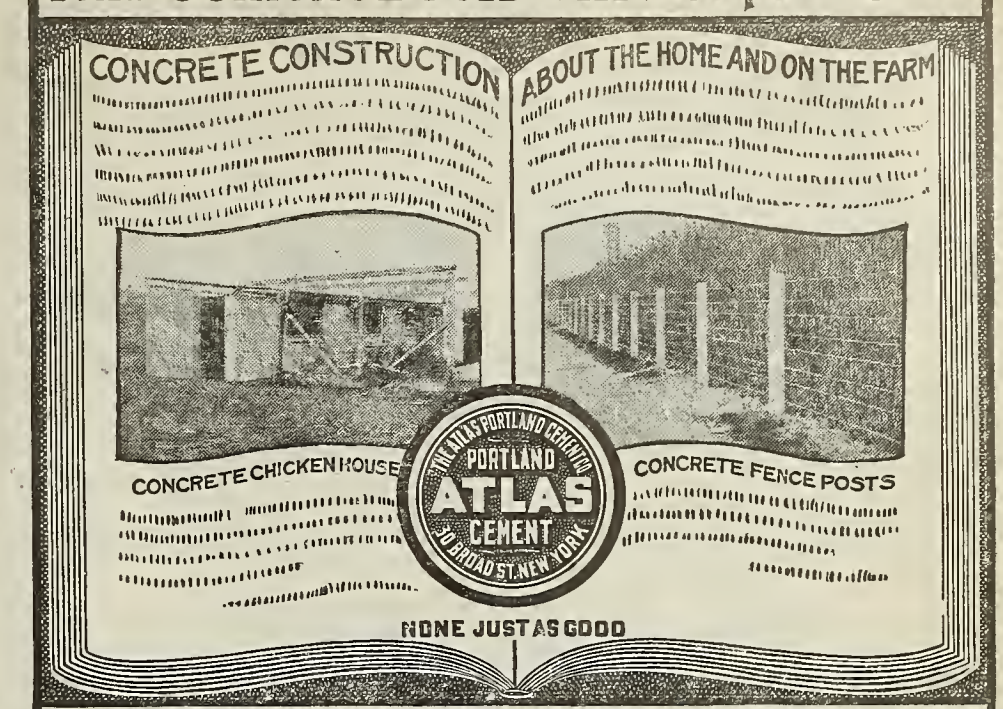

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I'll send you a CHATHAM Fanning Mill on 30 Days' Trial without any advance payment, just to prove it will do all we say it will. 250,000 sold already in U. S. and Canada. Experiment Stations indorse them, and Agricultural Papers recommend them to subscribers. So why take low prices for dirty, mixed grain, or sow seed that grows weeds and mixed crops? Write nearest office for full particulars, prices and New Catalog.

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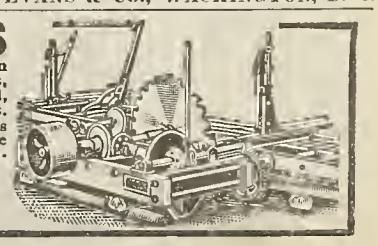

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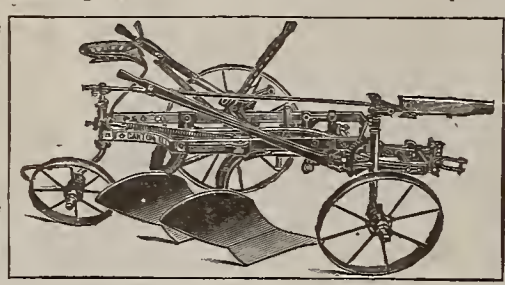

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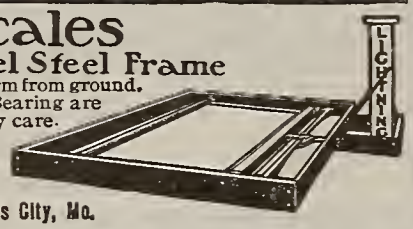

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Fruit-Growing

By Samuel B. Green

Scale on Palms

There are many scale insects which infest cultivated plants, and among them palms have their share of these damaging parasites. In a general way, however, the history of scale insects is something like the following: The mature female scales lay their eggs within their shells and then die, and on lifting the scales it will often appear that the whole shell is filled with eggs, and there is scarcely an appearance of the mother insects, which seem to have turned into eggs. These eggs remain under the scales for some little time and then hatch, and the young crawl from under the shell of the scale and move about on the surface of the plant, perhaps for only a few hours, or perhaps for a day. They are minute and will not be noticed without careful observation, a microscope being necessary to do this satisfactorily. It is by means of these minute, moving insects that the scale is spread. It is supposed that they are carried on the feet of birds or even on the bodies of other and larger insects. Of course, where plants are grown closely together, as are palms in the greenhouse, it is very easy for these insects to spread. Often plants that are bought from greenhouses have no scale insects showing on them, but at the base of the leaves or concealed in some other place there may be a few scales, which soon give rise to a considerable colony. The scale insects can go about for but a short time, when they attach to the plant and do not move any more, but undergo their changes where located.

Time to Bud Peach-Trees

In the Northern states it is customary to bud peach-trees, and they are seldom grafted. However, they can be grafted in the spring of the year, but the work should be done early before growth starts and the union should be made well below the surface of the ground. Treated in this way, the peach can be grafted successfully, although it is seldom practiced. With peaches it is customary in the North to plant the pits early in spring, in good soil. These start vigorously, and by the first of August are growing thrifty and are big enough to be budded, which work is done at this time and the stocks are cut back the following spring. In Southern states it is customary to plant the peach-pits early in the spring and to bud in June. Treated in this way, the buds are started into growth by cutting back the stocks as soon as they adhere well. On account of the longer season for growth in the Southern states, fully as large peach-trees are grown in one year as in two years in the Northern states. I think the United States Department of Agriculture, Washington, D. C., has a bulletin on the propagation of plants which you can obtain on request.

Woolly Aphis

Young apple-trees that have a sort of white, fuzzy-looking stuff on them with lice beneath are probably infested with woolly aphis. This is a root-louse which lives for a short time on the roots of plants, but may also live on the branches. It is very destructive, and I would suggest that you dig down to the roots of these trees and see if you find the grayish plant-lice on them. If so, and the trees have just been set out, I would recommend that they be taken up and destroyed and that no other trees be planted there for a year or two. If, however, the trees are older and thrifty, I think it would be a good plan to take the soil away from the trees down to the top roots and then cover with three or four inches of tobacco-stems or perhaps a half-inch of tobacco-dust and replace the soil. Tobacco is very obnoxious to this insect and will destroy it if persistently applied, and is also a fertilizer.

Destroying the Plum Curculio

Probably the safest way of preventing injury from plum curculio is to spray the fruit as soon as the flowers fall with an arsenate-of-lead solution and keep the fruit covered with it until the curculio have disappeared. This is a new treatment which seems to be proving satisfactory, and I am inclined to think it is the best remedy now known. Where this is not used, the old methods may suffice, such as destroying all rubbish in the vicinity of the plum-orchard, keeping the land well cultivated so as to afford no harbor for the mature insects in winter and, in addition, jarring the trees each day in spring and catching the beetles.

Cherry-Trees Not Bearing

J. R., Brainerd, Pennsylvania—Some varieties of cherries are very fickle in regard to fruiting, and it is difficult to give any definite reason why they fail to bear fruit. I think, as a rule, unfruitlessness is due to unfavorable situations or to rainy or cold weather at the time the trees are in flower.

By an unfavorable situation I mean, what is frequently the case, that the trees are located in some low spot where the frosts from the surrounding hills settle and bring about injury to the flowers or possibly to the buds. This trouble would be more severe with some of the tender varieties of cherries than with those that are more hardy.

Why Wonderberry?

This berry is receiving extensive free advertising, but, so far as I have seen, John Lewis Childs, the introducer, has not received due credit for his part in booming this useless addition to our gardens.

Luther Burbank doubtless succeeded in hybridizing two varieties of Solanum, and the hybrid is of much stockier growth than Solanum Niger and a more prolific bearer, producing a little larger berries of very similar flavor.

John Lewis Childs, of Floral Park, New York, one of the best-known florists and seedsmen, devoted to the Wonderberry a full-page colored plate in his 1909 catalogue, and gave it his strongest indorsement, advising all his customers to raise this "Luscious Fruit."

On his recommendation I bought from him one paper of seed which came up well, and I transplanted twenty-three plants to a sandy loam of medium fertility. I was pleased with their rapid growth and early maturing of a moderate crop of berries. But there the pleasure ended. I sampled them fresh from the vines, ripe and at all stages of development, until they dried on the vines. I did not eat many at any one time, as there was nothing in them to tempt my appetite. My neighbors sampled them with the same result.

We tried them with sugar and cream, and even preserved some, but in vain, we could not make up for their natural shortcomings. None of our neighbors have asked for seed, and I did not save any, and as the chickens and birds did not seem to enjoy them overmuch, the Wonderberry looks to me like a reasonably useless creation. S. I. Lee.

Gardening---By T. Greiner

The "Kid" and the Tomatoes

THE half-ripe tomatoes of the "Honor Bright" class, shown in the basket at the left of the picture, would hardly be recognized as tomatoes at first glance. The specimens were gathered in the light lemon-yellow stage, and they are so smooth and uniform, although only of medium size, that one might at first think it a basket of peaches or round plums. I have grown this class of tomatoes in a number of different forms. At first I had the Honor Bright, a vine of rather thrifty growth and that peculiar yellowish tint of leaf. Then came the Nuevo, a dwarf form having the large, coarse leaf, often called "potato leaf," but more or less of yellowish tint. These forms became mixed with the common sorts, but the Honor Bright blood seems to be so dominant that the fruit of the crosses generally retains the character of the original Honor Bright, which I believe was one of Livingston's productions or introductions. They pass from a light green color to a whitish, then to yellowish, next to pink and finally brick red. Fruit ripens a little late, but the vine is extremely productive, and a basket of the ripe fruit always tempts the buyer. We gather the half-ripe specimens late in the fall and try to have them ripen during late October and November.

The "Kid" and the Tomatoes

The "kid" is extremely fond of tomatoes, to gather as well as to eat, and she is only one of many kids who appreciate good tomatoes. She is always attracted by the queer coloring of this class of tomatoes, but when she wants a real good one to eat, she is more likely to pick out the mammoth specimens of the Ponderosa type shown in the basket at the right. I have no name as yet for this large tomato. Its solidity is shown in the cut specimen. The seed-cavities are small, and the space within them is large and solid, and the quality remarkably fine.

The cut specimen of the Honor Bright specimen shows an altogether different character of flesh. It is just such a tomato, in this respect, as we had years ago—large seed-cavities reaching almost to the very center. We can take one of the mammoth specimens of the other class and eat the whole inside out of the skin with a spoon as one could a muskmelon. With a little sugar, it is a treat for me, and for the "kid," too.

Paper Pots

I have been asked how I liked my paper plant-pots this year. I used a few hundred of them and found them extremely useful. They are a simple and inexpensive device—a piece of stiff paper fourteen by four and a half inches folded over a block and bottom fastened with little clinch tacks. The earliest tomato-plants, which I want large and well advanced by the time that they are to go out into open ground, need more room, and I shall continue to use the wooden plant-boxes—four and a half-inch cubes. But for later tomato-plants, egg-plants, peppers, as also for starting Lima beans, melons and similar plants under glass. I shall use the paper pots hereafter. We could even use them for starting a few hundred hills of early sweet corn so as to insure having ears fit for the table in early July.

The Peppers

I like to have plenty of peppers. Every home gardener can afford to have them, especially if he keeps poultry. Hens learn to like them, green or ripe, and all the more after the close of the season when green stuff begins to get scarce. If you have any green peppers left on your plants, pull up the plants with the peppers and stack them somewhere under shelter, safe from freezing and if you do not want the peppers yourself, as a table relish or for working up with other vegetables into side-dishes, your fowls will thank you for an occasional mess. I have sometimes cooked peppers, ripe and green, with beets, potatoes, pumpkins or other vegetables to be served with meal mixtures as a noon mash. At other times I have simply chopped them up raw, with or without other things, and mixed the mess with meals, etc., as a much-prized green food for the biddies. They like this treat and return the compliment in increased egg yield.

Pepper Varieties

Personally, I don't think much of peppers as a relish. But there are many people who like the large sweet peppers; and come to think of it, I have eaten them at various sociables and church entertainments in the form of "pepper sandwiches." On such occasions we sometimes eat and enjoy things that we might not care for at home. It is the company we are in that makes the difference. Good as well as bad examples are infectious. If one calls something good, the rest are bound to call it likewise.

At any rate, these large sweet peppers are in demand in our markets, and in private trade. Ruby King was deservedly popular, and is good yet. We need an early pepper, however, and the newer Neapolitan fills the bill. It is only of medium size, about twice as long as it is wide at its widest part near the stem. It is as sweet as any and it is very productive. In rich soil the plants are loaded.

Then there is Chinese Giant, somewhat later, very large, almost a cube in shape and often fairly smooth. It is good for making mangoes, or filled peppers, and perfectly sweet. We also have the newer Magnum Dolce, but I can find but little difference between it and the Chinese Giant in general characteristics, except that I believe the latter has fewer seeds than the other. This, however, may be merely an accident this year. Then there is another new sort, the tomato pepper, the single specimen resembling a tomato of medium size in outward appearances. We also have Golden Dawn and Golden Upright, yellow sorts, and altogether quite a choice to select from.

For several years I have neglected to grow the smaller red-hot sorts. These are often wanted for mixed pickles, chow-chow, etc., and sell to some extent. They are especially useful for poultry, being quite stimulating. I will surely make a note of it to have a lot of them after this. Among these hot sorts we have the new "Red Hot" and the Red Cayenne. A little bit of a thing, "Tom Thumb," is not particularly valuable as a table pepper or for poultry, but is ornamental and serviceable for pot culture to be grown indoors, and there are several other sorts that can be used as pot or house plants. The whole tribe of peppers, in fact, is interesting and more or less ornamental.

The Onion Maggot

A Seattle, Washington lady writes me an account of her troubles with the onion maggot. These disgusting worms have for the past two years ruined her entire onion crops, and she wonders where they come from and what can be done for them. This is an old enemy. I have occasionally lost a small percentage of onions in the field by their attacks, but never so many that I had to fuss much over the loss or use extra precautions against their depredations. Where they come from? A fly much resembling the common house-fly lays its eggs near the root of the young plant, usually at the surface of the ground, and the maggot soon hatches and eats its way into the bulb or stalk. One year there may be quite a number of these flies about, while none appear the next year. But where they once abound, as in the inquirer's garden, the reappearance of the fly and its progeny the next following year may be confidently expected. Planting onions as far as possible from where onions had been grown the year before is usually recommended as a means of keeping them free from the pest—running away from it, as it were.

Otherwise there are few, if any, easily-applied remedies. Spraying with insecticides such as kerosene and whale-oil-soap emulsions, and possibly weak lime-sulphur solution, will do the business if done frequently and thoroughly enough. The insect must be hit when just ready to enter the stalk or bulb, as it will be safe when once inside. Other species of this fly attack cabbages, cauliflowers, radishes, turnips, etc., but whether these ever change their food plants, going from cabbages and related plants to onions and vice versa, I am unable to say.

Burdock

BURDOCK is one of the most pestiferous weeds the farmer has to deal with. Growing readily in all soils and being of strong vitality it thrives wherever the seeds fall. No other growth ever crowds it out. It is equipped by Nature to hold its own "and then some" in any struggle for survival with any other plant-life. The seeds have strong germinating power, and they will lie dormant in the soil several years.

Carefully digging up the young plants with a hoe or dandelion spade will destroy every one. But after the plants becomes larger the roots must be cut out quite low below ground. For several inches below the crown the long, slender burdock root is covered with eyes or buds which will send up new stocks if the root is cut off above. For this reason many efforts to dig them out with spade or grubbing-hoe fail.

Care must be taken that none of the plants go to seed. In some states it is a misdemeanor to permit this plant to go to seed upon any farm or along the public highways, but like many of the other statutes it is not very rigorously enforced.

If the weed has seeded it is well to select some wet day in the fall of the year when the seeds will not scatter and cut and pile the seed-stalks, and when they are dry burn them.

Where the area infested by the burdocks is small, the ground infested is thoroughly spaded up in late July or August and all the roots down the length of the spade are taken up and destroyed. Then the ground is covered with coarse salt. This method destroys all the old plants. Afterward care must be taken that no new plants from the seeds already in the soil are allowed to grow. It will take several seasons to get entirely rid of them, but the work of destroying the young seedlings is comparatively easy.

M. G. RAMBO.

Cleaning Seeds Dry

IN FARM AND FIRESIDE for October 25th Mr. Greiner outlines his method for cleaning pulpy seeds. I use a method that has the advantage of requiring no washing. Washing destroys the natural juices of many seeds that should dry on them to render them air-tight. In my experience such seeds seem to keep their vitality longer. I take a strong, coarse cloth, place the seeds in it and knead and squeeze all the superfluous juice from them, then shake them out loosely on a flat surface to dry. When perfectly dry they are thoroughly glazed over with a coating that is impervious to air, and the seeds are nevertheless quite clean, as most of the pulp presses through the cloth.

J. F. RAMBO.

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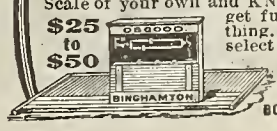

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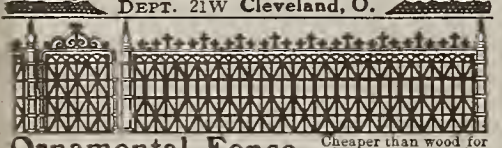

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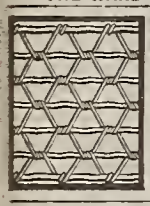

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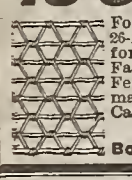

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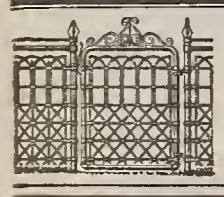

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Poultry-Raising

Profitable Farm Hens

ON MANY an average farm where poultry is merely a side issue, the hens are allowed to shift for themselves, and for lack of care return no profits. While my own flock are allowed the run of the farm, I have hens laying right along, even in molting-time.

I keep a good watch for lice and go over the roosts occasionally with a coal-oil-and-carbolic-acid emulsion. Nests are supplied with fresh material once a month and sprinkled with dry sulphur. When setting hens, I fill the bottom of boxes with cedar or tobacco-stems, either are good lice preventives. I feed my hens twice a day, using oats, wheat, corn and rye. I cook small potatoes, meat-scraps, bread-crumbs, meal-hulls, wheat-bran, etc., together, and feed at noon during cold weather. Parched corn is given three times a week. Lime, sand, charcoal and fresh water are kept where the hens may help themselves.

In picking out the pullets I choose the square-breasted, broad-backed, neat-trimmed ones that get about. A sluggish hen will prove a sluggard in producing eggs.

A small plat of rye and a late turnip-patch furnish green food when not snowed under. At such times I supplement the greens with cabbage trimmings or else soak out some kraut and mix with cooked food.

Cholera never has bothered us, but as a preventive I feed my flock of forty hens a teaspoonful of turpentine once or twice a month.

For limber neck I feed bits of tallow, fat meat or lard rolled in baking-soda, and search out the cause, which is usually a decayed substance covered with maggots. D. B. PHILLIPS.

Be Businesslike With Poultry

ONE reason why so many farmers "do not take any stock" in poultry is because they do not know from one year's end to another where they stand. That is, they cannot tell within forty rows of apple-trees how much they pay out for feed, nor how much the sales come to. This haphazard way of doing business is very apt to make a man think "there is nothing in it," anyway, and make him scold and find fault with his wife when she tries to encourage the thought of striking out a little more in this line of farming.

Now, it is not much work to do a little bookkeeping with the hens.

Take the matter of feed. You can easily measure out the corn, oats, buckwheat and wheat for the hens. Set down their value at the going prices. The same way with the cabbages or other vegetables; and if you use any bran or middlings or meat scraps, as you ought to if you expect to do anything with your hens, set that down, too.

It is a good plan, also, to count up your hens and appraise them at a fair figure, so you may know what you have invested. If you wish to carry it farther, assess the value of your houses and the land they have exclusive use of if you want it down to so fine a point as that. The point is to know what you are doing, just as you would if you were running a store down-town.

Keep an account of what your hens do for you. Every day count the eggs received, not simply those sold. Those you use are worth as much as if you had to buy them. Set down the price every day, not every few days, which may mean never.

Don't trade eggs for groceries at the wagon that comes along. Better sort the eggs as to color and send them in crates to some reliable commission man in the city. It is more businesslike. You can get your groceries where you like, and do better by paying cash.

There is a lot of pleasure in figuring up now and then and knowing how you are coming on. At the end of the year take an inventory again, strike a balance and see if you are not agreeably surprised at the actual profit there is in poultry-keeping.

Be businesslike in poultry-keeping as you are in everything else.

E. L. VINCENT.

Keeping the Hens Active

IN THE winter poultry-house we presume there is not one essential that is so efficient to the getting of winter eggs, outside of a proper feed ration, as plenty of chaffy litter upon the house floors.

Upon the farm where the small grains are grown we always thresh one mow of several tons' capacity full of straw, and have this material at our command any time during the winter season that we desire to replenish the poultry-house litter.

Long before snows begin to fly we fill up the poultry-house floor with a good supply of straw and chaff, and upon cold frosty mornings or cold windy days we throw a quantity of small grain into this chaff, and instead of having our hens out in the rough we find them busily engaged inside the house hunting out the last grain of wheat.

This brings the laying hens into winter weather, vigorous and healthy, with bright red combs and bound to be good egg-producers during the winter season. In the afternoons upon balmy days we throw handfuls of grain into the leaves and rubbish along the hedge-rows and wind-breaks, and have the hens getting down to business hunting and turning the leaves over for the scattered seeds. Anything that makes the hens work a bit in early winter is an incentive to egg-production, for we cannot expect the lazy, droning hen to pay for her keeping.

Where one cannot have a supply of this chaff on hand, a few barrels of leaves may be collected from the near-by woodland and hedge-rows, and it will be surprising how much comfort and work the hens will get out of a floor littered with these leaves. It takes but little room to store these barrels away in some shed or barn loft in the dry where they can be gotten at easily when needed.

GEO. W. BROWN.

Feeding Potatoes to Hens

I HAVE always fed more or less potatoes to the hens in winter, boiled and mixed in with most food. Last fall and winter I decided to test potatoes as food for pullets, and I found that those which had less, or very few potatoes, did better than those which were fed quite heavily on them, So, when I usually have a good many potatoes which I could use for this purpose, I shall feed less this coming winter.

Another instance which has come to my notice was where a farmer fed his hens heavily on potatoes and got hardly an egg all winter, while a nearby neighbor gave no potatoes at all to his flock and they laid right through the coldest weather, the stock and general surroundings being about equal, a few potatoes are all right to make up a variety, but I am decidedly against very free use of them as a poultry-food.

The importance of a variety of the proper kind of food for hens is not always understood. Hens will lay and do very well on wheat and clover alone, but by no means their best. A little green, cut bone and lean meat is very essential. The food which produces the best results is generally the cheapest, and its but little more trouble to make up a variety than to feed one thing week after week.

I feed quite a few onions, cutting them up in small pieces, and all of the onion tops are cut fine and fed to growing chickens at this time of the year. They are excellent for chickens, especially during cold, rainy weather.

V. M. COUCH.

Poultry Scraps

Keep the hens out of damp quarters. Dampness breeds roup and other diseases. Put a floor in the chicken-house or throw in a lot of straw to keep chickens off frosty floors.

Clean the windows of the poultry-house by washing with soapy water and drying with cloth or paper. Clean windows let in the warm sunlight on cold days, adding health and comfort to the flock. W. D. N.

Look Out For Gyps

The horse a gyp wants to trade you looks all right and probably will—until a few hours after the trade. Then hidden spavins or lameness may show up. The horse may be a roarer, a bad switcher or may have any one of a dozen or more vices. Perhaps you have been taken in on a 17-year-old because he has been bishoped and his teeth made to look like a 7-year-old. This has been done, and the bishoped horse sold for $3000.00—so you see it is a trick worth while. There are scores of dopes and tricks that are worked on the unsuspecting buyer. To protect yourself, you should send for

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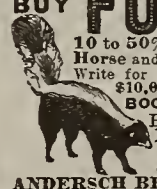

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Live Stock and Dairy

The Farm Stallion

THE average stallion kept on the ordinary diversified farm is too generally regarded, and treated, as a non-paying investment between seasons. He is put out of the way into some box stall, where he gets the minimum of light, exercise, feed and care. He comes out with sore legs and a greasy skin, due to poor circulation, and with the filthy habits and evil temper that are the products of solitude. It is flying in the face of logic and experience to expect to put him in shape as a steady getter of working-foals by a few weeks' conditioning in the spring.

The big, successful stud-owners place enough importance on air and exercise to send their animals out every day with a highly-paid groom at the halter. The owner of a single stallion should take a leaf from their book; he can, as well as not, go them one better by turning the exercise of his animal into profitable work.

Breaking the stallion to harness pays from plenty of viewpoints. When he stands idle, his powerful muscles represent so much energy going to waste. The sight of him behaving himself on the road is a better advertisement than ten miles of posters on telephone-poles. But above all, the conditioning effect of that work shows up in the number and kind of foals he will get.

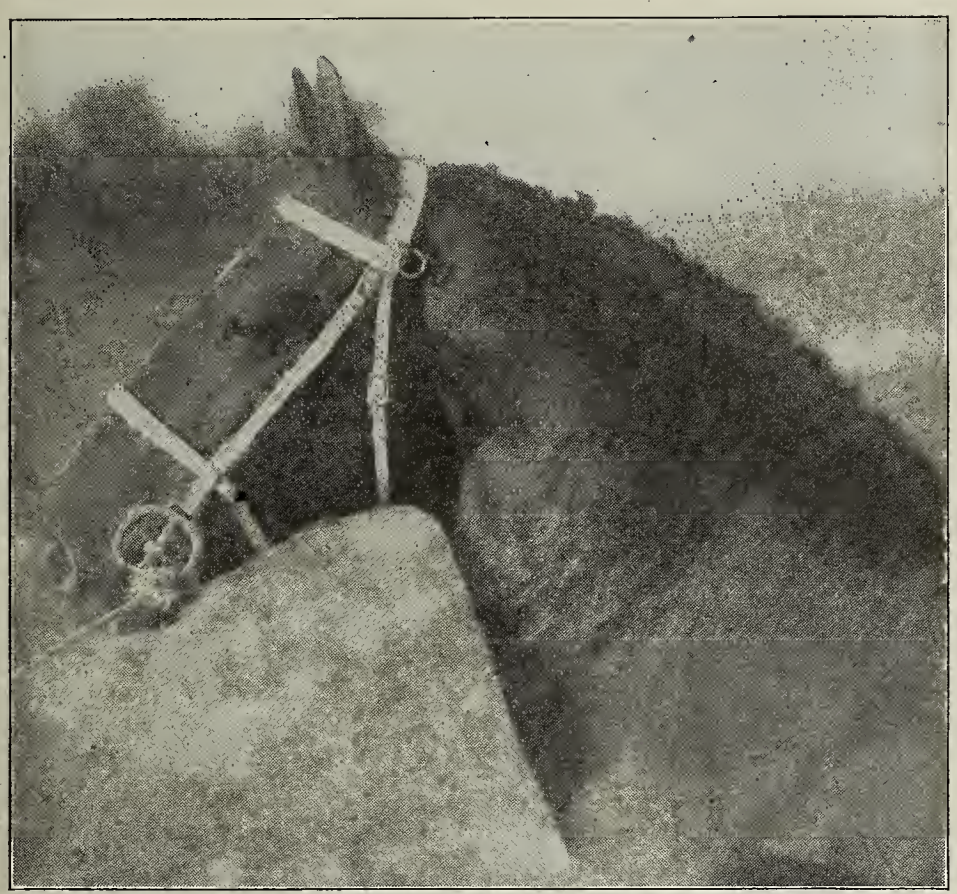
He should be taken early and hardened gradually, never overstrained, but never allowed to loaf. He should work in double harness with a mare if possible. Always there will be need of a strong harness and a steady hand on the reins; he is not an animal to be driven by a child, a woman or a new hired man. But with these precautions there is no overwhelming difficulty in making the stallion a useful servant instead of a ramping, squealing nuisance.

If he is too far along in age or too well established in his habits for breaking, he should at least be given a good-sized, airy and well-lighted box stall and free run of a yard in everything but blizzard weather. "Yard" does not mean a couple of square rods in front of his stall that will speedily become soggy with manure, but a patch of sod big enough to run in, surrounded by a strong, high fence, with no barbed-wire attachments. The stallion is too strong, too pig-headed and, lastly, too valuable to be given a chance to "mix it" with a barbed-wire fence.

Some feeders give too much roughage in the winter and stuff with corn in the spring, till the stallion is not only sleek but hog fat. Even feeding gives better results in the way of vigor and breeding ability.

While he requires extra grain to meet the demands of the breeding-season, it is bad policy to let down too heavily on feed at the end of it. The old formula of "a pound of grain and a pound of hay daily to every hundred pounds of live weight" is a good basis to go on, with variations suitable to each individual.

F. N. CORSEN.



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Anthrax in a New Place

THIS dread disease recently made its appearance near Sioux City, Iowa, and as it is a highly contagious as well as deadly, it has been the cause of no little alarm. The Iowa State Veterinary Surgeon confirmed the diagnosis of the local veterinarians and instigated a strict quarantine upon the herd.

The authorities are at a loss to explain the source of infection. There has been no addition of new stock to the affected herd for some time, and no cases of anthrax anywhere in the near vicinity. There have been sporadic cases of anthrax in several widely-scattered localities in northwestern Iowa during the fall. Its origin in each case has been unaccounted for. I have a theory, which I have not seen advanced anywhere, that the germs of this disease may be carried on the feet of certain birds. Now it is well known that crows and certain of the black-birds frequent the feed-yards of hogs and cattle. It is the habit of these birds to migrate at this season in large flocks, making long flights. I think that wherever it is found that such a highly-contagious disease has broken out from some unexplained source, it will, upon investigation, be discovered that the yards have been invaded by these birds in large numbers.

All animals afflicted with such diseases should be kept in sheds, and the offal from them should be burned or otherwise disposed of in a sanitary manner. The bodies of all animals dying should be buried in not less than five feet of earth, and preferably be covered with quicklime before the dirt is replaced. There will then be little or no danger that the germs will be carried away in the manner indicated or by dogs or other prowling animals which may stray through the infected premises.

It is a recent conclusion of the naturalists that the spawn of fish is carried upon the feet of wild water-fowl. In no other way, they declare, can the presence of trout in lakes having no outlets be accounted for. Many such lakes are known, and the fact that they contain the fish mentioned has long been a puzzle until this theory of the transmission of the fertilized spawn was advanced. If such a theory is tenable, how much more so is the idea that disease germs may be distributed long distances by the birds indicated.

In the incident near Sioux City one farmer undertook to skin an animal which had died from anthrax. He contracted the disease. There was a mild dispute among the doctors as to whether a human being could be infected, and some of them claimed that the man's trouble was of another character. But a microscopical examination of his blood and that from an affected animal proved the germs to be identical in kind.

It is wise for the farmer to be informed concerning this malady and understand something of its character and extremely infectious nature to man and beast.

M. G. RAMBO.

Feeding Horses Corn

IN THE corn belt, I am of the opinion corn is fed entirely too much because it is handy.

When you see a man feed a horse twelve good-sized ears of corn, unless the work being performed is much heavier than any ordinary farm work, you can put it down in the note-book in your head: "This man knows very little of balanced rations."

Eight ears we consider enough for our heaviest work, of course adding sufficient clover-hay to balance.

We know a great many farmers who shell the corn for their horses; that is business, if only they would take care in feeding. They feed in a clean trough, and the hungry work-horse gulps down the entire mess half-chewed in half the time he ought to, and when he gets "off his feed," his feeder wonders what the trouble is.

My brother is what I consider a pretty fair horseman; he used to get "into my wool" for feeding the horses without cleaning the cobs from the trough, but now he leaves the trough bottom covered with cobs, and if feeding shelled corn and bran mixed he puts some cobs in so the horses must nose about a while after the grain, instead of gulping down their meal half-masticated.

It is always advisable to feed the horse low down, this is the natural way for a horse to eat. I once knew of a man whose horse "didn't do well;" he tried everything until the simple remedy of lowering the feed-box solved the problem.

Very little corn should be fed horses when not at work; oats, bran or mixed grain in reasonable quantities and plenty of hay and grass is much better.

OMER R. ABRAHAM.

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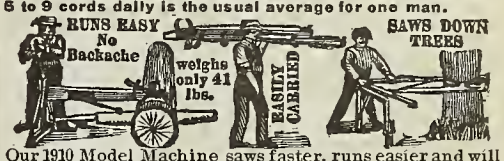
6 to 9 cords daily is the usual average for one man.



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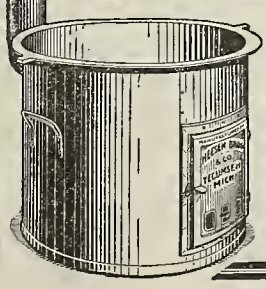

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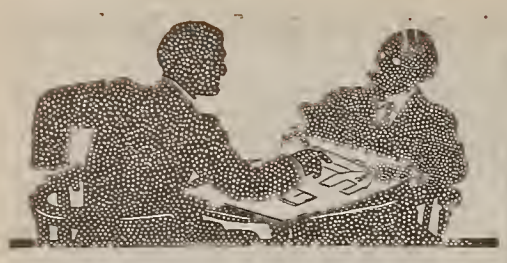

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"I guess shingles are good enough, aren't they?"

"Now hold on, Dad—'good enough' don't go. You know that shingles don't make a perfect roof by a long shot—burn too easy and sure to leak."

"How about slate?"

"No! Too expensive—wind's too strong around here—and we couldn't lay 'em ourselves."

"Well, why not try one of the best of those prepared roofings that come in rolls?"

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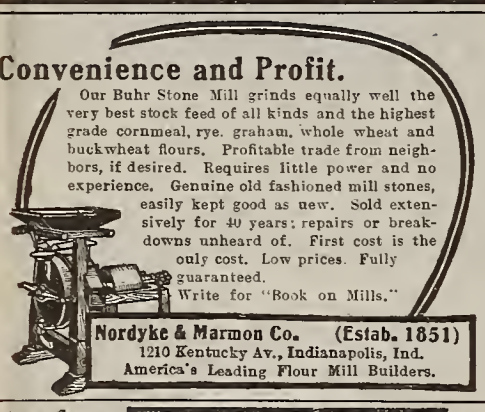

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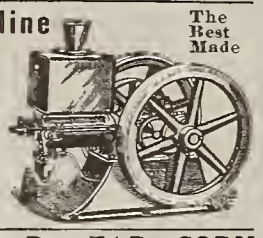

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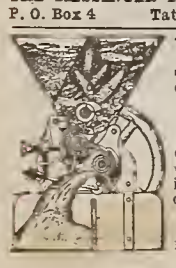

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Live Stock and Dairy

Conditioning Breeding-Swine

In the management of breeding-swine I consider the health of the animals the important point. Sunshine and exercise are the indispensable rights of all farm animals, and when we subject our breeding-swine to sunshine and compel them to exercise, we are quite sure to have healthy and vigorous animals. It is well enough to assist Nature in caring for stock, but it is all wrong to set Nature's ways aside and place our breeding-swine in damp, warm and poorly-ventilated houses.

Modern hog-houses as a rule are too close, too warm and too comfortable. Poor ventilation is a common fault and the inaccessibility to sunlight an equally serious one. Breeding-swine that are kept confined in such houses and curtailed as to exercise will inevitably decline in that superb vigor which immunizes animals against disease and enables them to transmit constitutional strength to their progeny.

Some swine-breeders have an idea that health and drugs are inseparable, but in most instances it will be found that it is more what we keep out of their stomachs than what we put in that counts. There are some valuable medicines and tonics for swine, but they must be used with caution.

When hogs are watered with patent waterers, both the drinking part and the barrel should be kept clean and sweet. A lump of quicklime dropped into the water keeps it pure. Some believe running water is necessary in a hog-yard, but, unless it is free from contaminating influences from hog-yards or pastures upstream, it is of doubtful benefit.

Every effort should be made to keep the breeding-animals free from lice and vermin, for swine that are lousy and filthy will fall easy prey to contagious diseases. Lime, crude carbolic acid and crude oil are the three best and cheapest disinfectants that I have ever found to use in the hog-houses and yards, and for a dip or louse preventive I have found that crude oil and crude carbolic acid, mixed in the proportions of one gallon of the crude carbolic acid to one barrel of crude oil, will make a very satisfactory dip. It loosens the old scurf, removes all the scales, makes the coat glossy and kills all the nits and lice.

I apply it with a brush or common hand sprayer and sometimes dip the pigs as the occasion requires. I have also found it an excellent scheme to saturate a few old sacks and wind them around a post and allow the pigs to make their own toilet. They will soon learn to use the post, and if the sacks are kept saturated there is little danger of the lice making much trouble.

Lime is an excellent disinfectant to use on the hog-house floors and to sprinkle around the yards after a rain. We should not neglect to plow the yards and change them as often as possible. Shifting swine to new ground is not only a sanitary measure, but forage crops will thrive wonderfully well on fields where hogs have been yarded and the soil well limed.

The question of exercise practically solves itself when the swine can be given the run of a good pasture or field of alfalfa, clover or blue grass. In the winter, if only the breeding-herd is kept, the question of housing is reduced to a minimum, although I believe that in most instances it will pay to carry over a bunch of fall pigs to follow the cattle and consume by-products from the dairy. Brood-sows should not be allowed to follow cattle for there is danger of their being injured or injuring other animals when they are allowed to run with them. The old sows and the young sows should be divided into two bunches and if possible these bunches sub-divided so that not more than ten will be in one inclosure.

There is a wide diversity of opinion among farmers and breeders as to how fat or how thin a brood-sow should be to produce the best results. Extremes are to be avoided. A sow that is running down in flesh the same as the sow that is washy with fat will produce a disappointing litter.

The fact that a vigorous sow in comparatively low flesh produces large pigs has no doubt led to the belief that a sow should not be too fat while doing this important work. The conclusion is correct if appearances at farrowing-time are considered, but if the observation is continued over a period of a few weeks, it will be found that the fat sow and her family have a decided advantage over the lean sow and her family.

The strong, husky pigs from the lean sow start well, but they soon sap the strength of their dam and have exhausted her reserve forces before they begin to eat, with the consequent results that they come to a standstill for a time. The pigs from the fat sow, while usually smaller to begin with, grow right along from the start, for by the time they have exhausted her stored-up vigor they are large enough to eat from the trough and there is no unthrifty period in their growth.

Too much fat produced by a ration of heat-producing food and lack of exercise make the sow a dangerous mother; she is cross, feverish and ill-tempered, and if any of the pigs live they are sure to suffer from her disposition.

The sow, however, that carries a large amount of flesh evenly laid on is usually the one that does best with her litter; she will be quiet longer than the lean sow that is prompted by hunger to be up and looking for something to eat. Even fleshing is best produced by a ration of proteinaceous forage and a small amount of grain foods. For winter feeding cut alfalfa or clover and roots add bulk to the ration and take the place of green foods.

The herd boar should not be allowed to become too fat. He should have pasture during the summer and roots or some other kind of succulent food during the winter with plenty of good grain to maintain his condition during the breeding-season. His grain food should contain a large percentage of protein; middlings, bran, oil-meal and ground oats all being palatable.

Many an excellent boar, for lack of proper care and nourishing food, passes into oblivion. He is placed in some damp, poorly-ventilated pen with no yard or pasture and kept inside the year around, and by the time he has matured sufficiently to be at his best he is ruined by excessive service and lack of exercise and nourishment. Give him a large pen and a yard away from the rest of the herd so that he will not be fretting and chopping, for a fretting hog never does well.

Ground oats are an excellent feed to stimulate the breeding qualities of all pigs of any age or sex and, as the season for mating approaches, his feed of that may be increased so that he will be in shape to meet the demands of serving a large number of sows. The drains on a breeding-boar are severe and it will require careful feeding to keep him in condition to bring the best results.

W. Milton Kelly.

Pig Items

One hole in the floor of a hog-pen may break the leg of a hog, and a hog with a broken leg is a spoiled hog.

Double up the corn ration to the hogs that are almost ready to turn off. Push them along. Get them out of the way so that the rest may have a better chance.

Cement is the cheapest material in the end for the floor of a hog-house. The floor of the outdoor department should be six to ten inches lower than the house floor, so as to insure good drainage and dry sleeping-quarters.

When hogs show an insatiate desire to root, it is well to study carefully their bill of fare. The chances are that it is out of balance and that the hogs are simply trying to help the feeder out by hunting for what is lacking.

Thumps is one of the worst complaints which trouble young pigs. The way to prevent it is to cut down the rations and compel the pigs to get out into the sunshine and run about. The pig that is a greedy eater and lies around in the bed is the one that usually has the hardest case of thumps.

Wm. H. Underwood.

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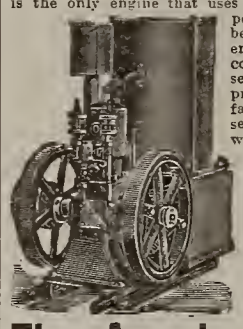

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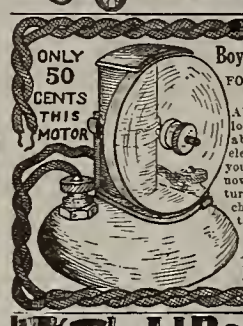

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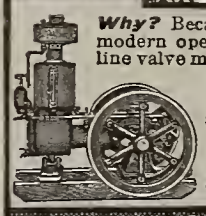

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Live Stock and Dairy

Ventilate, But Avoid Chilling

There are two extremes in the practice of shedding stock during the winter months.

One class of extremists, in trying to provide snug quarters for their stock, overdo the matter by confining too many animals under one roof without sufficient ventilation. This occasions crowding and unrest; and though the quarters may be warm, the influence of the re-breathed, foul air will more than counterbalance the beneficial effect of the warmth. The vitality of every animal is sapped, while any contagious disease, tuberculosis particularly, that may be in the herd, stands an excellent chance of spreading to every member.

Another class which practises an extreme in sheltering stock gives them plenty of room with ample protection overhead, but allows the wind to sift in through five hundred small and apparently insignificant crevices. These sifting winds are the worst destroyers of flesh and vitality that could be devised, especially where the herd is made up of sensitive dairy animals.

It would seem an easy matter to arrive at a proper medium between these two extremes in sheltering stock. The shed or individual stalls should be of such dimensions that the stock have plenty of air space, and enough room to move about freely. Avoid direct drafts or sifting winds. Do away with dampness by furnishing proper ventilation, which is more especially to be desired when the weather makes it necessary to house the herd most of the day. Admit plenty of light, direct sunlight for choice. Remember, sunlight not only warms, but disinfects.

M. A. Coverdell.

The Breeding-Flock

Throughout the country there is wide variation in the rations fed the breeding-sheep during the winter. In the East roots compose much of the food, while in the West many flocks are taken through the winter entirely without them. Too many roots or other foods of similar nature are not good for ewes in lamb, but a few roots judiciously fed in connection with nutritious foods, such as oats, bran and clover-hay, make a splendid ration. The roots should be hacked in two and fed at once to avoid their freezing.

A ration composed of equal parts of oats, bran and corn, with a small quantity of oil-meal, will give good results. About half a pound of the above mixture fed daily in conjunction with plenty of well-cured fodder will be sufficient to keep the flock in thrifty condition. The great trouble, however, is to get fodders in a palatable condition for the animals.

The best kind of roughage for breeding-sheep is nicely-cured clover and alfalfa hay, but where these are not available, corn-fodder may be fed very economically and satisfactorily. If cut and cured while they are still a trifle green, sheaf-oats also make a very desirable grain and fodder ration. If the corn-fodder and sheaf-oats are scattered in the lots or sod fields, the weak and strong and robust and greedy individuals will get about equal shares of the ration.

A ration similar to that fed the breeding-ewes may be given the ewe lambs, but should have greater variety, if possible. The breeding-rams and ram lambs should have a more liberal quantity of grain in connection with roughage; corn should form a small proportion of the grain ration if more nitrogenous grains, such as oats, wheat and barley, are as available and cheap.

If the breeding-flock enter winter quarters in good flesh and are given well-cured fodders, such as clover and alfalfa hay, native hay and roots, little grain will be needed until near lambing-time. If, however, they are in poor condition, no time should be lost in getting them in better shape with rather generous grain feeding.

It is very essential that plenty of water, good and pure, be supplied at all times, and salt should be kept where the animals can partake of it when they so desire. It is a great mistake to salt sheep only once a week or at long intervals, because they are apt to eat more than is good for them, thus often causing heavy drinking, which is apt to bring on derangements of the digestive system or cause scouring.

A very necessary feature is exercise. If the ewes do not receive plenty of this during pregnancy they will usually experience more or less trouble in lambing, and the offspring are likely to be puny. A good plan is to make the animals walk about half a mile each day for a part of their roughage. To keep a breeding-ewe penned up in a small inclosure is simply nothing short of killing her with kindness.

The house need not be a warm one, but it should be such as will protect the animals from high winds and cold rains. If the quarters are dry the sheep will endure considerable cold without any inconvenience. A yard that would otherwise be damp may be made dry by bedding it with straw. The ewes will eat a part of the straw and the remainder will be tramped down to make manure.

As every one knows, sheep are timid animals and must be kept quiet. Strangers and boisterous men and boys should not be allowed to go plunging about among them. Dogging should be avoided, especially among ewes that are in lamb.

W. H. Underwood.

Preventing Scours

After much trouble and experimentation raising calves, particularly from high-bred dairy stock, when feeding skim-milk either cold set or separator, I hit upon the following method.

When the calf was three days old it was taken from its mother and placed in a pen well bedded, warm and dry. Sometimes for lack of room it was hitched behind the cows in the stable with a strap around its neck and chain attached, but here, also, it was well bedded and dry. I fed skim-milk warmed to about blood-heat and into this stirred one tablespoonful of flaxseed (linseed) meal. Two quarts were given at a feed, three times daily, until the calf was a month old, increasing milk and meal as the calf grew in size.

Three things tend to scours in calves —cold milk, cold and damp quarters, and lack of fat in the milk deranging the digestive organs. Flaxseed-meal supplies the needed substance in the milk and keeps the digestion healthy. I have never lost a calf with bloat or scours that was fed it and they grew well, and the hair looked bright and glossy, unlike that of most calves.

For calves that are scouring, feed a generous handful of epsom salts; one dose is usually sufficient to clear the digestive tract; then feed flaxseed-meal as before described.

One warning in using this latter, however: Do not overdo the quantity. When fed in great excess flaxseed-meal itself tends to loosen the bowels.

H. M. Percival.

Farmers, Test Your Milk

While traveling and calling on many farmers, we have found that a large number of them are prone to complain about the returns from the creamery, which they patronize. Although we believe that in some cases complaining is all right, still a large number of them complain when they do not really know anything about their cows, as milk producers.

The best way is not to complain, unless one is sure that he is being cheated by the butter-maker. And a person cannot say that he is not given his rights unless he has a cream-tester of his own. A tester may be procured at small cost, and the directions how to use it are furnished with each outfit. Then, if a farmer finds that the butter-maker does not give him his dues, he has a right to complain.

Another good reason for having a milk-tester is that each cow's milk may be tested, and the owner can ascertain which cows are profitable. We have visited farms where the milk of each cow was weighed and tested. The milk was weighed at each milking and tested a few times each month. At the end of the year the farmer knew which cows were profitable, and which were not.

J. W. Burke.

Dairy Dottings

Set your own standard in the dairy business, and follow it, provided it is above that of your neighbor.

Snug, sanitary quarters, kindly care, a variety of proper rations—what a world of meaning contained in those few words!

Some men think dairying never pays in summer, on account of the flies and the heat; others think it is up-hill business when it grows so cold and feed is so high-priced. Both fail to see how the faithful dairyman meets and overcomes these difficulties or how great is his reward.

M. A. C.

NATIONAL DAIRY SHOW
DE LAVAL
BUTTER AWARD TRIUMPH
AS USUAL

The great NATIONAL DAIRY SHOW was held at Milwaukee, Wis., October 15-24, and in keeping with the invariable result since "ALPHA-DISC" DE LAVAL CREAM SEPARATORS went into use all the HIGHEST BUTTER and CREAM awards went to DE LAVAL users, in this latest representative contest, which included the exhibits of nearly one thousand of the best butter and cream producers throughout the country.

The three highest awards in the CREAMERY BUTTER class—all to DE LAVAL users—were as follows:

A. J. ANDERSON, Otisco, Minn., . . Score 97
THOR. MOE, Winthrop, Minn., . . . Score 96½
A. L. OESTRICH, Watertown, Wisc., . Score 96

The highest award on DAIRY BUTTER was to P. Daingaard, Camp Point, Ill.—Score 94½—a DE LAVAL user.

The highest award in the CERTIFIED CREAM contest was to G. Van B. Roberts, Highland, N. Y.—Score 99—a DE LAVAL user.

The highest award in the CREAMERY PATRONS contest for hand separator cream was to G. B. Fisher, Viroqua, Wis. —Score 93½—a DE LAVAL user.

Full details of all the entries and scores have not yet been made public, but there is no doubt that the vast majority of all exhibits scoring 90 and above will prove to have been DE LAVAL made, as heretofore.

Incomplete reports have been received of highest butter awards at the various STATE FAIRS this year, but practically all of them have been to DE LAVAL users, including particularly New York, Indiana, Michigan, Missouri, North Dakota and South Dakota.

As has been said before, the separator does not of itself insure the making of the best butter, but the superior mechanical and sanitary bowl construction and low speed of the DE LAVAL separator indisputably enable the production of better cream and better butter under the same conditions than can possibly be made in any other way.

This is something that even the most enterprising and resourceful of those who seek profit through the manufacture and sale of would-be competing separators never attempt to explain or deny,—that practically all the best butter, as evidenced by the highest awards in all representative butter contests, is and has for more than twenty years been made by users of DE LAVAL cream separators.

Hence the great advantage to every DE LAVAL user in having the separator that not only makes the MOST but the BEST cream and butter, is the simplest and easiest machine to use and lasts an average of twenty years against from two to five years in the case of all others.

A DE LAVAL catalogue helps to make plain the reasons for DE LAVAL superiority in good buttermaking and other respects, and is to be had for the asking.

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FARM AND FIRESIDE

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Mention Farm and Fireside when you write to our advertisers, and we guarantee you fair and square treatment.
Of course we do not undertake to adjust petty differences between subscribers and honest advertisers, but if any advertiser in this paper should defraud a subscriber, we stand ready to make good the loss incurred, provided we are notified within thirty days after the transaction.
Farm and Fireside is published on the 10th and 25th of each month. Copy for advertisements should be received twenty-five days in advance of publication date. $2.00 per agate line for both editions; $1.00 per agate line for the eastern or western edition singly. Eight words to the line, fourteen lines to the inch. Width of columns 2¼ inches, length of columns two hundred lines. 5% discount for cash with order. Three lines is smallest space accepted.
Letters regarding advertising should be sent to the New York address.

The Farmers and the Waterways

It is to be hoped that the New Orleans Waterways Congress means what it says in its resolutions.

It says that it intends to carry to the polls its demands for a policy of action in waterway improvement. It says that it will call upon friends of such a policy to vote for those candidates for Congress only who believe in doing something besides investigation and oratory.

The way to improve is to improve. The engineering problems of the Lakes-to-the-Gulf Deep Waterway are as well worked out now as they will ever be prior to actual digging. They are as well worked out as were those of the Panama Canal when we began work on it. Those who favor further delay must not complain if their attitude is construed to be one of hostility to the whole scheme of improvement.

Every pound of farm products would be rendered more valuable to the farmer of the interior of the continent by an adequate system of improved waterways, protected by law against unjust railway attack. The resolutions passed at New Orleans seem to inject into our politics an issue of importance to every farmer. The farmers could, if they would, pledge a majority of the next Congress to the policy of immediate action.

Rural Education a Coming Question

Our editorial, "A New Kind of Rural School," touched a responsive chord in the breasts of our readers. The letters we have received from them show this, and prove that the patrons, teachers and pupils of the rural schools are deeply interested in this most vital matter. This is as it should be. For there are for us two great ever-present problems always demanding solution.

The first problem is this: What sort of men and women will occupy the farms of the future?

The second problem is this: What sort of farms will they occupy?

Not to answer these questions correctly is to court evil results; and they are both questions of education. Given the right sort of education, the farms of the future will be occupied more and more by men and women who will be deep thinkers, living righteous lives, who will realize to the uttermost the possibilities in the way of a full, beautiful, learned, useful and happy life on the farm. Given the wrong kind of education, most of our farms will some sad day be found in the occupancy of a class of stolid, dull, down-looking people, who will till the farms because they have not had the energy to detach themselves from the soil and go with the live ones to the city.

And as to the farms themselves—given the right kind of education for the rural districts of this generation, the farms of the future will grow better and better crops and will boast, as a part of their higher and higher class of improvements, homes which will possess the conveniences of the city dwelling of the better sort in the midst of those country surroundings for which city people willingly leave their homes during an increasingly greater portion of the year.

We speak of "a new kind of country schools," but no one should gather from the use of this expression —quoted from the Report of the Country Life Commission—that nothing is being done to improve the country schools. In some portions of the country much is being done. There is one county in Iowa which has just been visited by a delegation of school superintendents from the South because its fame has gone forth as a place where the country schools are good and of "a new kind." It is not the only Iowa county so famed. Nor is Iowa the only state doing new and good things in this direction. We hope to present to our readers the details and the results of some of the most hopeful of these experiments in the improvement of rural schools.

But how is it with your school? In all too many of the country districts in which this is read, the schools, unfortunately, are no better than they were fifty years ago. In some they are not so good. How is it in your district? Are your children taught the things which will make for better farm life in the next generation or are they taught on the old plan of sending them from the farm to the town preparatory to becoming presidents of the United States?

The Packers' Fifteen-Million-Dollar Loss

The Meat Packers of the United States in convention assembled loudly assert that owing to the federal meat-inspection laws they are made to lose fifteen million dollars annually through the condemnation of diseased animals. This is a fifteen-million-dollar falsehood. The packers do not lose one single cent by the condemnation of animals. The loss, every cent of it, falls on the stock-growers of the country. To be sure, the packers buy the condemned animals and pay for them, and are not repaid for the loss when the animals are condemned. But the people of the land are too clear-sighted to be made to believe from that surface fact that the packers lose. They no more lose than a life-insurance company loses when a member dies; and every school-boy knows that in such a case the money to pay the loss has been collected beforehand and is ready for the beneficiary. So it is with the "loss" of the diseased animals condemned by the government. The buyers cannot tell in any given carload of animals how many will be found diseased; but in any given ten thousand, they can tell accurately. In a million, they can predict to a fraction of one per cent. When they buy, therefore, they buy knowing as well how many will be condemned as if the inspection could be made unerringly before slaughter. Every load of stock bought in any stock-yards is bought at a price that takes into consideration the average number of diseased animals which a post-morten examination will show. We are all interested in the stamping out of disease; for it falls on all of us to make good the loss. And all stock-raisers are interested in the maintenance of the old rule that when the cattle or hogs pass across the scales at the yards, the money shall be paid to the owner for them without waiting for a post-mortem which the stock-raiser cannot attend and at which he cannot be represented.

Is Fertility Inexhaustible?

Prof. Milton Whitney of the Bureau of Soils will find himself more and more the center of a storm of controversy as his recent optimistic bulletin on the wearing qualities of soils draws the fire of the soil specialists of the world. One of his statements runs to the effect that so far as our information goes there is no appreciable difference in fertility between the older agricultural soils of Europe and the newer ones of the United States. One scientist at the Dry-Farming Congress pronounced the Whitney bulletin full of "the most dangerous heresy ever preached to farmers." There will be no lack of expert opinion to the effect that Professor Whitney's book tends to create a fool's paradise for the inhabitancy of the soil exploiter. If Mr. Whitney means, as he must, that there is sufficient fertility in the soil to last a long time with good management, that is one thing; but if he means that phosphorus, for instance, once taken from the earth, is not a loss, and that continual subtraction of it will not ultimately destroy productiveness, that is quite another. That the older soils, treated as they have most of them been with commercial fertilizers, may be even more fertile than they ever were before in historic times may be admitted for the sake of the argument; but the phosphate rocks are limited in quantity, and when once the pinch for phosphoric acid spreads to wider areas, the end of them will soon be in sight. And then the real test of "continuous fertility" will be on. The quality we most need is miserliness of fertility. Once let that become universal, and there will be a better basis for optimism.

* * *

The fourth meeting of the International Dry-Farming Congress met in the last days of October at Billings, Montana. It was a remarkable meeting. This new movement in American agricultural practice has so grown that in the little Montana town there came together delegates from all the states and territories of scanty precipitation, from the three provinces of Western Canada, from Mexico, from several of the rain-belt states, from Hungary, Germany, Russia, South America and South Africa. In all, nearly eight hundred delegates considered for three days the problems relating to farming with scanty rainfall. The two features of the gathering were the attentions paid to Mr. H. W. Campbell, whose long years of preaching, literally like one crying in the wilderness, have resulted in such a rapid growth of the dry-farming movement and the turning down of the railway magnates and immigration agents who desired to eliminate the word "dry" from the name of the organization in the interest of colonization schemes. The congress voted to retain the word "dry" and its integrity. It honored Mr. Campbell in spite of the sneers of the more typical "scientists" who sneer at Campbell, for no reason which is apparent to the outsider, save that he has done his work without their license or sanction. The next meeting will be at Spokane. All farmers who live in danger of drought anywhere will do well to read its proceedings. And that means all farmers.

THE HOUSE THAT JACK BUILT

Every week—almost every day, we receive letters saying, "We don't see how you can make such a paper as Farm and Fireside for the money." If that seemed wonderful before, how much more wonderful is it now with the new paper on which Farm and Fireside is printed, the cover in colors, the finer pictures, more writers of authority, and all the other signs of enterprise and progress.

Still we are giving our Farm and Fireside family one last chance to test out the new and greater Farm and Fireside at the old low prices—to prove themselves that it is worth all of the new price and more.

HOW CAN WE AFFORD
To Give You This Chance?

The advertisements make this possible. But that isn't all. The business houses who advertise in Farm and Fireside would soon tire of paying for this advertising space if you did not use Farm and Fireside's advertising columns and buy the goods there advertised. Here you have "the House that Jack Built." We accept only thoroughly reliable advertisements which we fully guarantee; you buy the goods thus advertised; the advertisers are satisfied with Farm and Fireside and buy more advertising space; and we are enabled to give you a strong, interesting farm paper—a better Farm and Fireside than ever before at a very low subscription price. But you ask, "How does the advertiser know how much goods he sells on account of his advertisement in Farm and Fireside?" **He doesn't unless you tell him**—unless you mention Farm and Fireside every time you answer an advertisement. Don't fail to let every advertiser know, and know again, that you saw his advertisement in Farm and Fireside and that you have confidence in him **because** you saw it in Farm and Fireside.

Those are the two points we wish to bring home to you:

1st. Use the advertising columns, whose reliability Farm and Fireside guarantees.

2d. Tell every advertiser that you saw his advertisement in Farm and Fireside.

If you do this, we will be able to make for you a better and better Farm and Fireside at a subscription price that seems unreasonably low.

OUT OF THE LETTER-BOX

Editor of Farm and Fireside:—

Your column of "Talk About Rural Schools" interests me. The schools are good as far as they go, but they don't go far enough. Most children can finish the eighth grade at fourteen or fifteen years, many younger. They are too young to send away from home even if one is financially situated to do so.

Teachers in some states are required to pass an examination for a certificate in ninth and tenth grade studies. Why are they not allowed, or required, to teach those grades in the rural schools?

This may not touch on the line as you suggest, but it is of great importance to a great many parents. How can we have ninth and tenth grade studies taught in the rural schools?

South Dakota. W.

Editor of Farm and Fireside:—

I read most of Mr. Lewis' letters, for the reason that they are printed in a paper that I subscribe for. I judge that the management of Farm and Fireside is in sympathy with the views expressed in Mr. Lewis' articles. For this reason I never expect to see this article in print. I am an admirer of Joe Cannon. I consider him one of the clearest, cleanest-cut specimens of the Yankee American citizen that we have in the nation. I fail to see where he has done otherwise than carry out the wishes of the House of Representatives. Of course such men as Mr. Lewis are continually trying to get a dig at him, but I do not believe that they hurt either his feelings or his reputation. I see that Mr. Lewis has no doubt of his ability to correctly size up any man in the nation.

Michigan. O. A. Vanderbilt.

The Farmers' Lobby—No. I.

The Approaching Congress—A Forecast—By Judson C. Welliver

Judson C. Welliver

Tariff, Postal Savings Banks and Parcels Post Legislation to Be Side-Tracked . . . Possible Government Answer to the Query: Who Gets the Dollar Paid by the Consumer of Farm Products? . . . Conservation Laws in Prospect . . . No Strong-Handed Railway Regulation Probable . . . The Coming Struggle of Cannon and Aldrich to Retain Control . . . A Bird's-Eye View of Coming Events.

THAT eminent student of sociology and the stock market, that distinguished farmer of both the farmer and the soil, Mr. James J. Hill, has recently stirred up considerable excitement by promulgating a theory that we are liable some time in the future to starve to death. Mr. Hill finds grave menace to the rest of the community in the excessive prosperity of the farmer. He finds that too many farm people are moving off to town; that the farms are not being managed so well as they ought to be; that we are exhausting our soil by unscientific cropping, and, in short, that production of things to eat is not keeping pace with the community's appetite.

Mr. Hill, be it noted, is not an original propagandist of this alarming theory. His conclusions are not essentially different from those published by Malthus rather over a century ago. Both saw the race approaching starvation, though by somewhat different philosophic routes. The recrudescence of Malthusianism just now commands attention, partly because it is sponsored by so distinguished a man and so great a practical philosopher and economist as Mr. Hill, and partly because the unprecedentedly high cost of living in times of great productivity gives strong color of reasonableness to the notion that starvation really is somewhere on the trail of many of us.

Whether Mr. Hill is right or wrong, the Department of Agriculture, which has excellent means of knowing about such matters, is organizing a great campaign to find out whether the average productivity of our soil is diminishing and, if so, why, and how to remedy it. Along with this inquiry, the department will continue with redoubled energy its campaign of education to secure better farming and bigger crops.

* * *

THE spectacle of great numbers of farmers leaving the farms at a time when returns from the soil are generally very profitable certainly justifies serious consideration. Recent careful inquiries have developed support for two strange propositions:

1. That the urban consumers of farm products of all kinds are paying more for them than ever before.
2. That the very farmers who ought to be getting rich on such unprecedented prices are leaving their middle-Western farms in annually increasing numbers.

Why should the farmer be quitting the farm if he is making so much money? I asked that question of a very wise man who has studied the matter many years and whose conclusion represents a mature judgment applied to the best information the government has been able to gather. He replied in substance thus:

"The farmer is not making the huge profits that the consumer's provision bills suggest. The fact is the complicated machinery of distribution is costing too much. There are too many and too large profits between farmer and consumer."

"The railroads?" I queried.

"No, not the railroads; there may be some excesses, but the transportation changes are not what do the harm."

"The meat trust, then, and so on?"

"No," replied my informant impatiently. "It isn't the big trusts that are doing the great damage, either; it's the little combinations. The big trusts may get pretty fancy profits, but they are not the final offenders. What I mean, in short, is that the disparity between the farmer's return and the consumer's cost is made enormous, because of thousands of local combinations in trade—in retail trade for the greater part.

"Don't you know there isn't a city which hasn't a milk combination? In the country town it is a quiet understanding; in the big city it is an iron-clad combination which may or may not be incorporated, but which controls the means of distribution. It underpays the farmer four cents or less per quart for his milk and overcharges the city man nine cents; five cents goes for middleman's expenses and profits.

"The manufacturers are combined, the jobbers have associations which in many cases are known to be illegal conspiracies, the retailers are organized and control prices. The result? In this city [he was talking of Washington, which in this regard is typical of Eastern cities] if you will look up the automobile owners you will find that the majority are people whose income is derived from participation in this big enterprise of middlemen's distribution. They are getting more than their share of the prosperity. True, they perform a very real and necessary service; but they take too heavy a toll for it."

The speaker, as I have said, was a man whose declaration would have been first-page news in every paper in the land the next morning if he could have been quoted. He proceeded to declare that there must be radical change of these conditions, or there would come a social crisis. The blame is being put on the farmer. He is pictured as the real plutocrat, the man with the automobiles, the octopus who has the people of the cities working for him. There are plenty of innocent folk in town who actually believe the farmers are all rolling in wealth; and one result is an increasing feeling of distrust between the masses in the cities and the millions on the farms. My informant continued:

"This situation must be made plain to the country. I propose to open up the matter at the coming session of Congress. My plan is to turn it over to a commission somewhat like the old industrial commission, with instructions to get the facts about combinations, local and general, their operations, business, profits, actual expenses, etc. Most of these local combinations are in violation of state laws; the larger ones are frequently in violation of the spirit, at least, of the federal anti-trust act.

"If the people knew the facts, there would be a new attitude toward this question of the cost of living. There is a feeling of hopelessness about remedying conditions. The farmers, with their coöperative creameries and merchandising associations, their farmers' elevators, their buying in large quantities, their sending away from the local market for much of their purchasing, are giving practical shape to their protest.

"The people in the cities have not made any such progress. The prosecution of a city milk trust is quite a wonder. People in cities are at the mercy of the price-fixers. They can't buy in considerable quantities, because their homes are in flats, without storage facilities, cellars, etc. The smaller the package, the more popular it is with the poorer people, in spite of its disproportionate expense.

"First, we must have a popular understanding of these immense burdens which present-day methods of distribution impose. Then we must have the coöperative effort on one side and the prosecution of the combines on the other to bring about better conditions. To that end Congress will be urged to take some highly important action the coming winter. If it can be induced to initiate such an investigation as I have suggested, that will be the biggest single accomplishment of the session."

During the tariff debate last winter there were some pretty pointed suggestions of this excessive cost of the middlemen's function; but almost all the politicians, fearful of the effect of seeming to attack the great business interests, ran from the first suggestion that there was need of such an inquiry. The matter is going to be presented and pressed at the coming session, and it is anticipated that the proposal will have the backing of pretty nearly all the people. The cost of living is the greatest single issue before the country to-day, and recognition of its true elements is beginning to be much more definite than ever before.

* * *

NO QUESTION now before the public comes closer to the agricultural population than conservation. It is going to be strictly at the fore during this winter's session. In the name of conservation the government is being asked to take up almost infinite variety of projects. One would have half a billion dollars invested in improving rivers for navigation. Another wants a huge expenditure for establishing the White Mountain and Southern Appalachian forest reserves; another demands a big outlay for draining swamps.

Another phase of this conservation movement will relate to the handling of coal and other minerals and metals within the government domain. In both houses there will be demanded legislation under which the surface may be sold for agricultural uses, while the underlying minerals are reserved by the government, to be worked under lease and strict government regulation.

Still further, and another aspect of the same ambitious conservation movement, will be the effort for laws to protect the water-powers of the country against being absorbed by the water-power trust which, once regarded as rather penumbral and imaginative, is now universally recognized as not only in existence, but well on the way to substantial control in many sections. Whether public lands containing water-powers or coal or phosphate beds may be withdrawn from entry by executive decree is a serious and as yet not entirely settled question. President Roosevelt didn't inquire if he had the power; he saw the need of using it, and he promptly assumed and then exercised it. President Taft wants to wait till he is certain he has it before he uses it.

It will be years before a general conservation scheme is developed to perfection, but history will recognize this coming winter's session as the one in which the first long steps were taken toward formulating the permanent national policy.

* * *

THE railroad regulation question, like the poor, we have always with us. To nobody is it of more vital interest than to the farmer, because he produces such an immense share of the traffic of the country and because his profits are to a large measure determined by the transportation he pays. Senator Cummins will introduce a bill to direct the Interstate Commerce Commission to make a complete schedule of rates for the country. It is a tremendous task; yet the Railway and Canal Commission of the United Kingdom made such a schedule for the British railroads, and after nine years' experience it has demonstrated its efficacy. President Taft will recommend changes in the method of administering the government's regulative powers over the railroads, but I am doubtful, after some study of the program outlined in his Des Moines speech, whether the changes he recommends will add greatly to the powers of the commission. In all probability there will be a long and determined fight over this question, with the radicals, like Cummins, La Follette and Bristow, urging a greater grant of new powers than the President will recommend or the conservatives in Congress will favor. It is perfectly plain that Senator Aldrich at one end and Speaker Cannon at the other end of the Capitol are going to make every effort to retain their control over Congress; and the struggle to unhorse them will be one of the spectacular and dramatic performances of the session. It may as well be set down definitely and finally that effectual, telling progress along the lines which I have suggested will not be considerable so long as these men and their kind dominate the business of Congress. The sooner the country learns the extent of their power and takes measures to loosen their grip on legislation, the better it will be for all save the privileged interests they represent.

* * *

THE tariff is going to be side-tracked for this session, aside from a vast deal of talk for political purposes, which will undoubtedly be heard. But effective accomplishment, there will be none. Likewise it is improbable that anything will come at this time of the effort to secure general parcels post or postal savings legislation. These are two things in which farmers generally take the leading interest; but the influences against them are thus far ascendant. They are gaining strength, however, and the time is not far distant when they will force legislation.

There has been suggestion of effort to secure financial legislation aimed at establishment of a central bank of issue. So far as the coming session is concerned, it will not be forced into consideration unless there is a change from plans now made. Senator Aldrich, the leading spirit back of the central bank movement, is not yet ready with his project. When it comes, he will probably couple a postal bank plan with it for various reasons: One, to secure the support of the postal bank's advocates for the central bank plan, and another, to bring under the government's control, as a backing for the central bank, the vast deposits, probably two billion dollars within five years, which would flow to a postal bank system and have to be administered and invested by the government.

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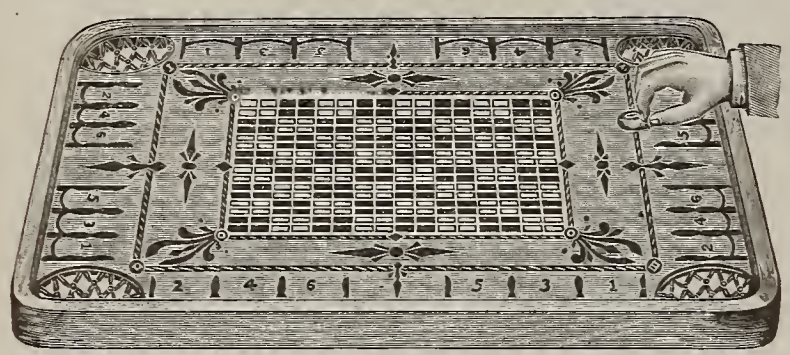

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OUR OFFER

Send us only **twelve subscriptions** to FARM AND FIRESIDE and we will ship you this excellent Archarena Game-Board, transportation charges to be paid by you.

Two-Bladed Pocket-Knife

This is a strong, well-made durable knife, suitable for ordinary usage, and particularly appropriate for the boy. The handle is of stag and the tips of German silver. It has one large and one small blade, both welded from good steel, and in all is a serviceable, durable article. This knife is intended primarily for the boy's use and it is for this purpose that we recommend it.

No. 156

OUR OFFER

Send us only **three subscriptions** to FARM AND FIRESIDE and we will then send you, post-paid, one of these desirable Pocket-Knives.

Noah's Ark Animal Cut-Outs

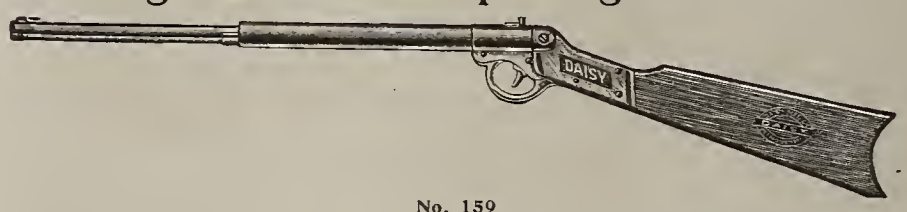
No. 157

These Cloth Cut-Outs are very popular among the children because all children are fond of animals. This sheet, 19 by 28½ inches in size, has four complete animals printed upon it in colors, and when sewed and stuffed will outlast many times the child's other toys. On this sheet are a Dog, a Cat, a Sheep and a Rabbit.

OUR OFFER

Send us only **two subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, one of these Complete Noah's Ark Animal Cut-Outs.

King 150-Shot Repeating Air-Rifle



No. 159

This Air-Rifle shoots 150 times without reloading. Extremely simple in construction, durable and shoots accurately. Gives a boy lots of outdoor exercise and cultivates manliness. Shot costs but 10 cents per 1,000.

OUR OFFER

Send us only **five subscriptions** to FARM AND FIRESIDE and we will send you, express collect, this King Repeating Air-Rifle.

Weeden Guaranteed Steam-Engine

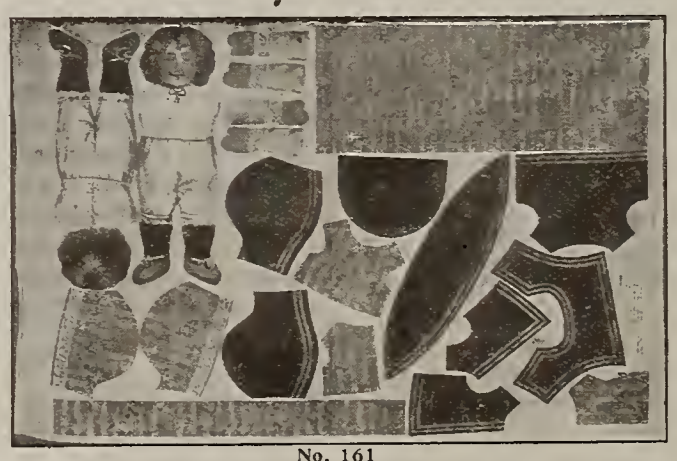
Every boy wants a Steam-Engine, and here's the best one in the market, the well-known, guaranteed Weeden Engine. It has all the parts of a regular engine, fly-wheel, cylinder, piston, whistle, etc., and is a practical and instructive toy for any boy. Every engine is tested before it leaves the factory and is in good running order when it leaves our hands. We can furnish duplicate parts in case of accidental breakage. Every real boy at some time in his life wants a mechanical toy. He wants to see the wheels go around. That's why you should get this engine for your boy. You get it for nothing, and it will be a lot cheaper to let him tinker with this engine than to take his father's watch apart to see how it works.

No. 160

OUR OFFER

Send us only **five subscriptions** to FARM AND FIRESIDE and we will send you, charges paid, the Weeden Guaranteed Steam-Engine.

Daisy Doll Cloth Cut-Outs



No. 161

The Daisy Doll Cut-Outs is the only outfit made that has a full suit of clothes for a child to cut out, make up, and dress the doll. The Suit consists of Skirt, Waist, Jacket and Bonnet. The Doll itself is 13 inches high. When made up is an attractive, durable doll for a little girl.

OUR OFFER

Send us only **two subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, this complete Daisy Doll Outfit.

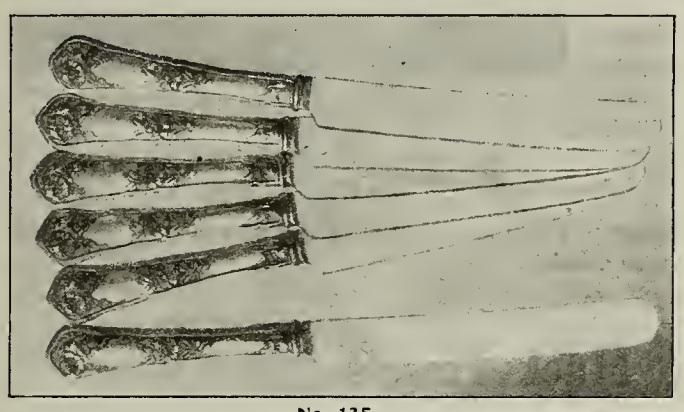
See important offers on the following pages.

Send Your Order to FARM AND FIRESIDE, Springfield, Ohio

Celebrated Oneida Community Silverware

Guaranteed for Ten Years

Table-Knives



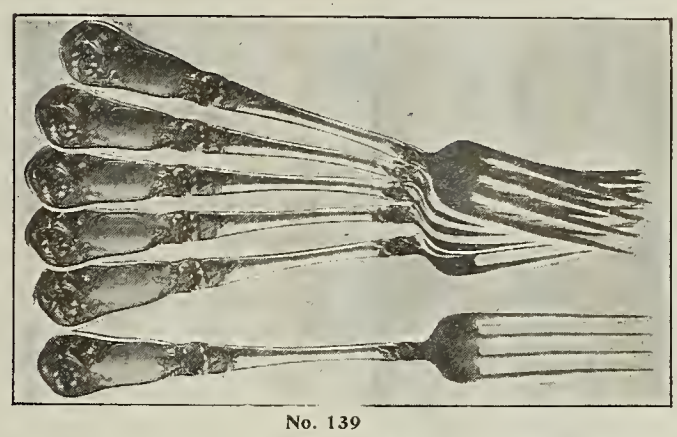
No. 135

These knives are the Celebrated Oneida Community Silver, and each set is accompanied by the manufacturer's guarantee for ten years. The base metal is the same as used in all high-grade silver and the plating is very heavy. The design, the new Wild-Wood pattern, is rich and tasty.

OUR OFFER

Send us **twelve subscriptions** to FARM AND FIRESIDE and we will then send you, post-paid, a set of **½ dozen** of these Silver Knives.

Table-Forks



No. 139

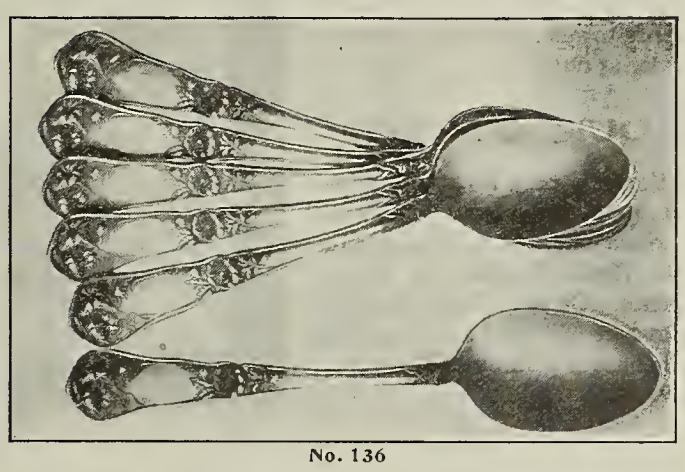
You will undoubtedly wish to secure a set of these Wild-Wood Forks, manufactured by the Oneida Community and guaranteed by them for ten years. There is no brand of silverware made in this country to-day of better value than these goods. The design is exclusive and beautiful.

OUR OFFER

Send us **twelve subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, a set of **½ dozen** Wild-Wood Forks.

Teaspoons

These teaspoons, also, are made by the Oneida Community, and, like the knives, are guaranteed for ten years. The Wild-Wood pattern is elegant and chaste, and enhances the value of this silver manifold. These spoons are heavy and sightly, and have all the richness of the solid-silver article.



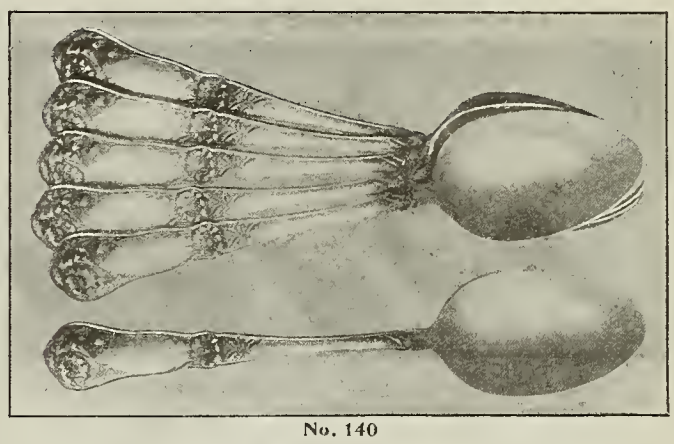
No. 136

OUR OFFER

Send us only **five subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, **½ dozen** of these Heavy Silver Teaspoons.

Tablespoons

The Wild-Wood Tablespoons show to the fullest extent the beauties of the workmanship of the Oneida Community. Tasteful in design and substantial in quality, these spoons fulfil all expectations. In design they match the other silverware shown on this page and are an essential part of the set.



No. 140

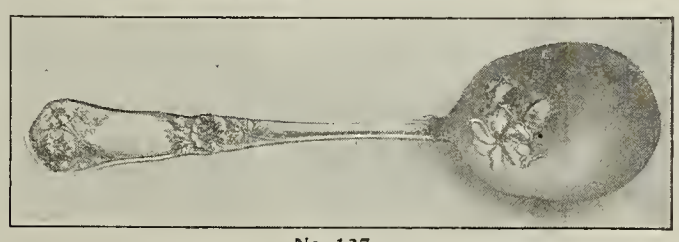
OUR OFFER

Send us **ten subscriptions** to FARM AND FIRESIDE and we will send you in return, post-paid, a set of **½ dozen** Wild-Wood Tablespoons.

Our Special Silverware Combination Offers

We offer a set of **½ dozen Knives** and **½ dozen Forks,** Wild-Wood pattern, for only **20 subscriptions.** Or, we will send you a set of **½ dozen Teaspoons** and **½ dozen Tablespoons** for but **12 subscriptions.** Or, if you wish to secure a complete set, composed of **½ dozen each, of Knives, Forks, Teaspoons and Tablespoons,** we will fill your order upon receipt of **52 subscriptions** to FARM AND FIRESIDE. We will prepay all charges. Remember, this Silverware is guaranteed absolutely for 10 years.

Sugar-Shell



No. 137

This Sugar-Shell is one of the special pieces manufactured by the Oneida Community, and in design is distinctive and desirable. The pattern is the Wild-Wood, to match the other pieces shown on this page.

OUR OFFER

Send us only **two subscriptions** to FARM AND FIRESIDE and in return we will send you, post-paid, one of these Silver Sugar-Shells.

Butter-Knife

No. 141

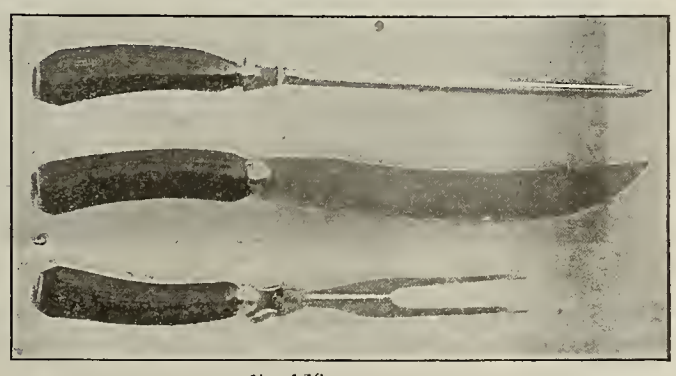
This is another of the Oneida Community special pieces. We can say of this Butter-Knife, as we have said of the other pieces, that it is of best value and attractive design.

OUR OFFER

Send us but **two subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, one of these Community Silver Butter-Knives.

3-Piece Carving-Set

A Carving-Set is absolutely essential to every table, especially when you entertain. This set will do you credit. The handles are imitation stag with German silver ferrules, and the set as a whole will make a desirable addition to your tableware. There are three pieces, a Carving-Knife, Carving-Fork and Steel.



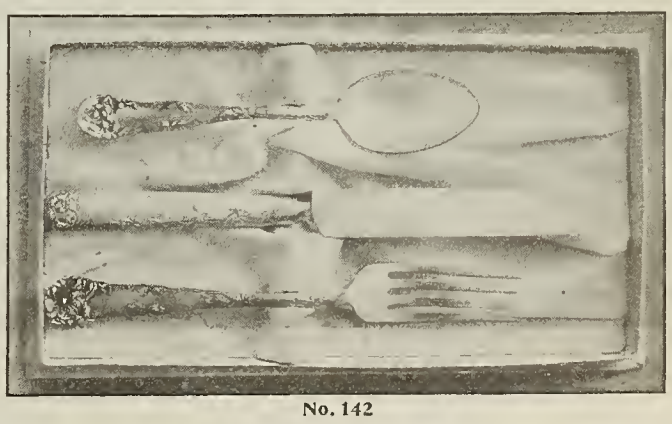
No. 138

OUR OFFER

Send us **nine subscriptions** to FARM AND FIRESIDE and we will send you, charges paid, one complete Carving-Set.

3-Piece Child's Set

The best is none too good for your little one. Therefore, send for this 3-piece Wild-Rose Child's Set. This is a dainty design, singularly appropriate for little hands. Community Silver, too, and guaranteed to give service and satisfaction.



No. 142

OUR OFFER

Send us **five subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, one of these pretty Wild-Rose Child's Sets.

Subscription price to FARM AND FIRESIDE (until December 30th) one year, 35 cents; two-year subscription, to one address, 50 cents; four-year subscription, to one address, $1.00. A four-year subscription at $1.00 counts as two subscriptions toward any premium.

Household Linens

Full-Size Red-Bordered Damask Table-Cloth

No. 100

This Table-Cloth is an imported article, full size with a fast-color red border. It is deservedly the most popular table-cloth on the market and will wear and launder well. In all, it is a handsome, durable article and will give good service. Much more might be said, but everyone will recognize this article at once as the most staple table-cloth now in use. There is not a household in the land that does not need one.

OUR OFFER

Send us **seven subscriptions** to FARM AND FIRESIDE and we will send you, charges paid, this desirable Table-Cloth.

Red-Bordered Damask Napkins

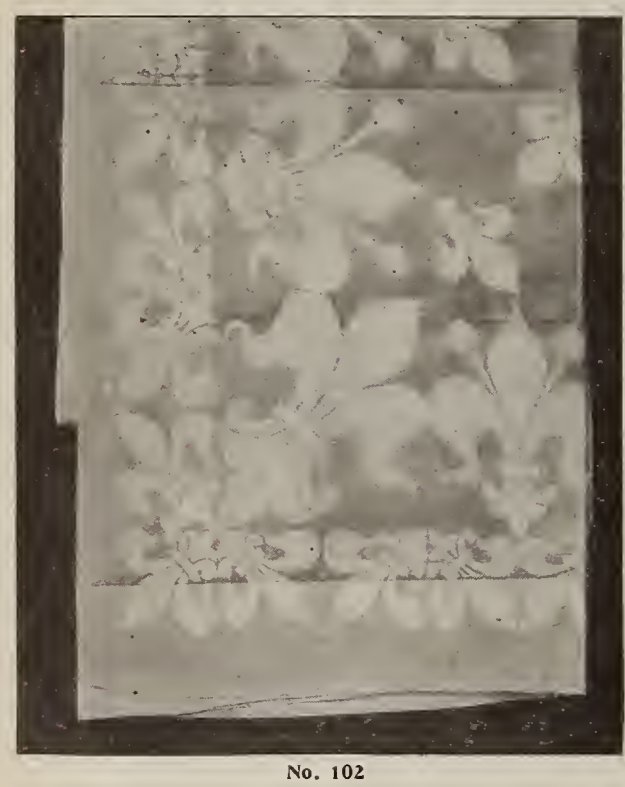
No. 101

We will send **six** of these full-sized, red-bordered, Fringed Damask Napkins, to match our No. 100 Table-Cloth, for only **three subscriptions.**

COMBINATION OFFER

Our No. 100 Damask Table-Cloth and six No. 101 Fringed Damask Napkins to match for only **ten subscriptions.** Sent at our expense.

Mercerized Damask Table-Cloth



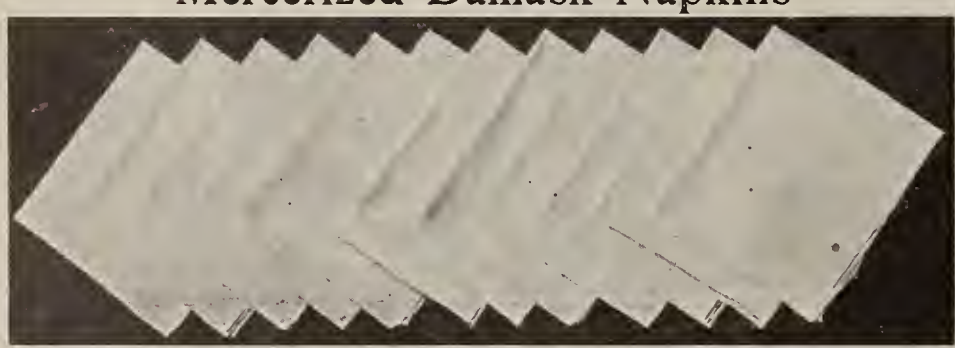
No. 102

This beautiful Mercerized Table-Cloth has a lustrous, artistic fleur-de-lis design, and is richly and attractively finished. The pattern is chaste and refined, and the texture of the cloth is excellent. This table-cloth is full size and a distinctly desirable appointment for any table. We cannot begin to do this table-cloth justice, either in the illustration or this limited description. You must see it to appreciate its worth. We will guarantee satisfaction.

OUR OFFER

Send us **eight subscriptions** to FARM AND FIRESIDE and we will send you, charges prepaid, this beautiful Mercerized Table-Cloth.

Mercerized Damask Napkins



No. 103

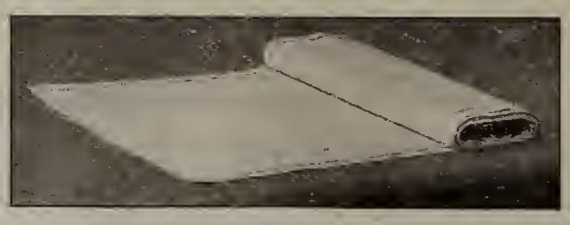
We will send you **six** of these Mercerized Damask Napkins, 20 inches square, to match our No. 102 Damask Table-Cloth, for only **five subscriptions.**

COMBINATION OFFER

Our No. 102 Mercerized Damask Table-Cloth, with six large-size No. 103 Mercerized Napkins for only **twelve subscriptions.** All charges paid by us.

16-Inch Linen Crash Toweling

We offer this 5-yard bolt of Pure Linen Crash Toweling, suitable for dish, roller or hand towels. This crash is full 16 inches in width and every thread is pure linen. This is a practical and sensible selection and an item that can be used to excellent advantage by every housekeeper.



No. 104

OUR OFFER

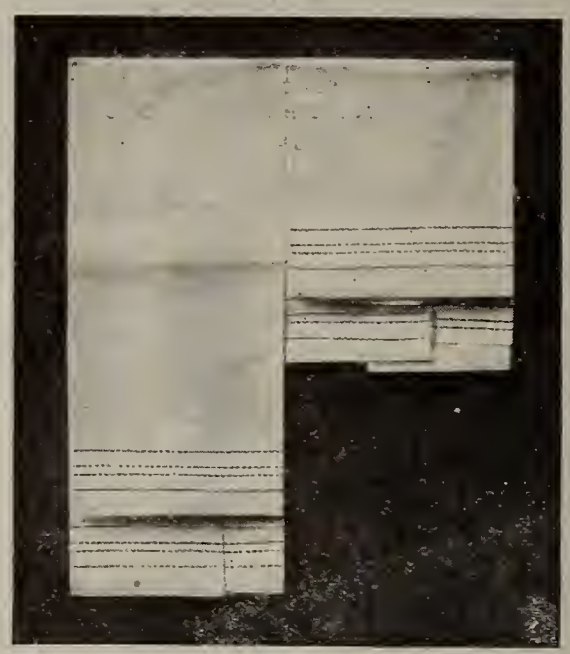
Send us **four subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, this 5-yard bolt of Linen Crash.

Huck Towels

Can you use six good-sized Huck Towels, of excellent quality? Here they are. An indispensable article in every household. Why buy them when you can get them from us free of cost? Of course you will want them. Everyone needs towels. Let us have your order at once.

OUR OFFER

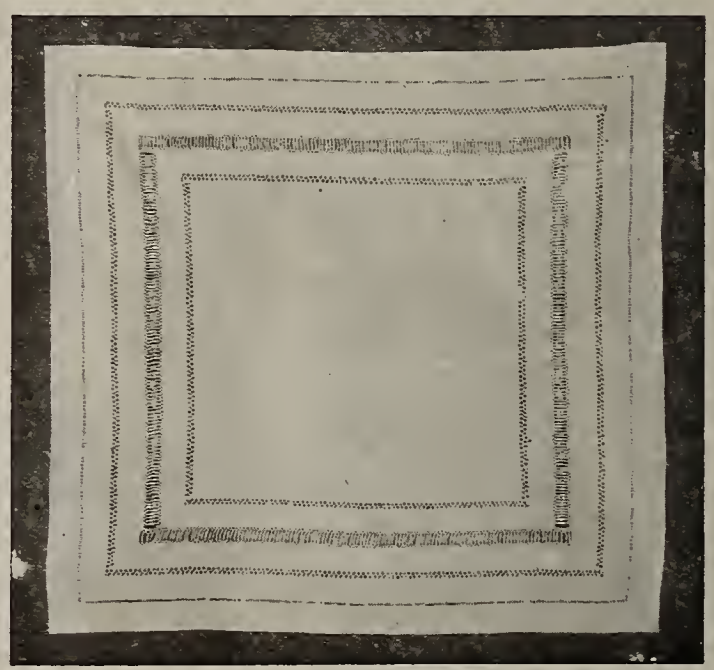
Send us only **five subscriptions** to FARM AND FIRESIDE and we will send you, postpaid, **Six Huck Towels,** 15 by 30 inches. Or, for **nine subscriptions** we will send a **full dozen,** all charges paid by us.



No. 105

Hemstitched Openwork Lunch-Cloth

This handsome Lunch-Cloth is nearly a yard square, and is made from a heavy and durable fabric. Any ingenious housekeeper can put it to a variety of uses. For example, it can be used as a tray-cloth, stand-cover or lunch-cloth. As will be seen from the illustration, the design is attractive and distinctive.

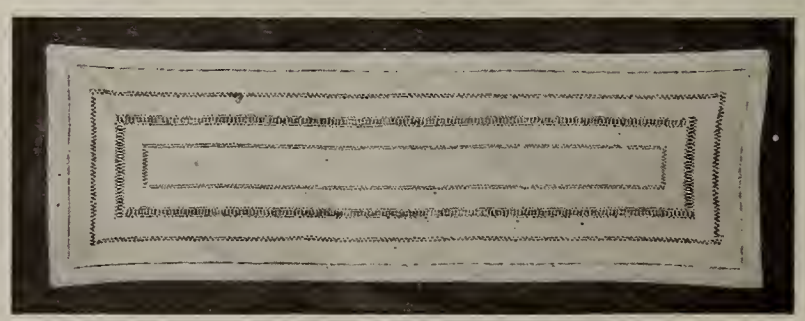


No. 106

OUR OFFER

Send us but **three subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, this desirable Hemstitched Openwork Lunch-Cloth.

Hemstitched Openwork Dresser-Scarf



No. 107

This Scarf, 18 by 50 inches, is just what you want for your dresser. A handsome design and of fine quality. Can be used also as a sideboard scarf.

OUR OFFER

Send us **three subscriptions** to FARM AND FIRESIDE and we will then send you, post-paid, this beautiful Dresser-Scarf.

Subscription price to FARM AND FIRESIDE (until December 30th) one year, 35 cents; two-year subscription, to one address, 50 cents; four-year subscription, to one address, $1.00. A four-year subscription at $1.00 counts as two subscriptions toward any premium.

Cloth-Bound Books

For the Boy

BOUND TO WIN SERIES

Adrift in New York.....Horatio Alger, Jr.
Adventures Among the Indians.....Kingston
Afloat in the Forest.....Capt. Mayne Reid
Bonnie Prince Charlie.....G. A. Henty
Bound to Rise.....Horatio Alger, Jr.
Boy Hunters.....Capt. Mayne Reid
Boy Knight.....G. A. Henty
Boy Trapper, The.....Harry Castlemon
Bravest of the Brave.....G. A. Henty
By Pike and Dyke.....G. A. Henty
By Sheer Pluck.....G. A. Henty
Captain Bayley's Heir.....G. A. Henty
Cast Up By the Sea.....Baker
Chester Rand.....Horatio Alger, Jr.
Child's History of England.....Chas. Dickens
Christmas Stories.....Chas. Dickens
Daniel Boone.....G. C. Hill
Deerslayer.....J. Fenimore Cooper
Desert Home.....Capt. Mayne Reid
Do and Dare.....Horatio Alger, Jr.
Driven from Home.....Horatio Alger, Jr.
Drummer Boy, The.....J. T. Trowbridge
Facing the World.....Horatio Alger, Jr.
Floating Island.....Jules Verne
For Name and Fame.....G. A. Henty
Frank the Young Naturalist.....Castlemon
Frank in the Woods.....Castlemon
Frank on the Lower Mississippi.....Castlemon
Frank on a Gunboat.....Castlemon
Frank Before Vicksburg.....Castlemon
Frank on the Prairie.....Castlemon
Frank at Don Carlos Ranch.....Castlemon
Green Mountain Boys.....Thompson
Grit, The Young Boatman.....Horatio Alger, Jr.
Hector's Inheritance.....Horatio Alger, Jr.
Helping Himself.....Horatio Alger, Jr.
Hero of the Pine Bridge.....Lieut. Butler
In Freedom's Cause.....G. A. Henty
In the Reign of Terror.....G. A. Henty
In Times of Peril.....G. A. Henty
Jack Harkaway's School Days.....Hemyng
Jed, The Poorhouse Boy.....Horatio Alger, Jr.
Joe's Luck.....Horatio Alger, Jr.
Kidnapped.....R. L. Stevenson
Life of Kit Carson.....Edward S. Ellis
Little by Little.....Olive Optic
Lone Ranch.....Capt. Mayne Reid
Luke Walton.....Horatio Alger, Jr.
Mark Mason's Victory.....Horatio Alger, Jr.
Only an Irish Boy.....Horatio Alger, Jr.
Pathfinder.....J. Fenimore Cooper
Pioneers, The.....J. Fenimore Cooper
Prairie, The.....J. Fenimore Cooper
Rifle Rangers.....Capt. Mayne Reid
Risen from the Ranks.....Horatio Alger, Jr.
Shifting for Himself.....Horatio Alger, Jr.
Sink or Swim.....Horatio Alger, Jr.
Slow and Sure.....Horatio Alger, Jr.
Sturdy and Strong.....G. A. Henty
Swiss Family Robinson.....J. D. Wyss
The Spy.....J. Fenimore Cooper
Through the Fray.....G. A. Henty
Tom, The Bootblack.....Horatio Alger, Jr.
Tom Brown's School Days.....Hughes
Try and Trust.....Horatio Alger, Jr.
Twenty Thousand Leagues Under the Sea.....Verne
Wait and Hope.....Horatio Alger, Jr.
With Lee in Virginia.....G. A. Henty
With Wolfe in Canada.....G. A. Henty
Young Acrobat.....Horatio Alger, Jr.
Young Midshipmen.....G. A. Henty

For the Girl

PRINCESS SERIES

Adventures of a Brownie.....Mulock
Alice's Adventures in Wonderland.....Carroll
Andersons Fairy Tales.....Anderson
Arabian Nights.....
Aunt Diana.....Rosa N. Carey
Averil.....Rosa N. Carey
Bad Little Hannah.....L. T. Meade
Bailiff's Maid, The.....E. Marlitt
Bella's Blue Book.....
Black Beauty.....Anna Sewall
Book of Golden Deeds.....Yonge
Brownie of Sanford.....Carrie L. May
Bunch of Cherries.....L. T. Meade
Cuckoo Clock.....Mrs. Molesworth
Daddy's Girl.....L. T. Meade
Deb and the Duchess.....L. T. Meade
Dog of Flanders.....Ouida
Erl Queen.....N. Von Eschstruth
Esther.....Rosa N. Carey
Faith Cartney's Girlhood.....Mrs. A. D. T. Whitney
Four Little Mischiefs.....Mulholland
Frances Kane's Fortune.....L. T. Meade
Girls and I.....Mrs. Molesworth
Girl of the People, A.....L. T. Meade
Girl in Ten Thousand, A.....L. T. Meade
Good Luck.....L. T. Meade
Grimm's Popular Fairy Tales.....
Honorable Miss, The.....L. T. Meade
House That Grew.....Molesworth
Helen's Babies.....John Habberton
Jackanapes.....Mrs. Ewing
Jarl's Daughter.....Mrs. Burnett
Leona.....Mrs. Molesworth
Late Miss Hollingsford, The.....Mulholland
Little Lame Prince.....Miss Mulock
Little Susie Stories.....Mrs. Prentiss
Merry Girls of England.....Meade
Naughty Miss Bunny.....Mulholland
Next Door House.....Molesworth
Old, Old Fairy Tales.....Miss Mulock
Only the Governess.....Rosa N. Carey
Our Bessie.....Rosa N. Carey
Out of Fashion.....L. T. Meade
Pilgrim's Progress.....Bunyan
Polly, A New Fashioned Girl.....Meade
Princess of the Moor.....E. Marlitt
Queechy.....Mrs. Wetherell
Rab and his Friends.....Brown
Robin Redbreast.....Molesworth
Ruth Lovell.....Carrie L. May
School Favorite.....Mrs. Meade
Six Little Princesses.....Prentiss
Six to Sixteen.....Mrs. Ewing
Stepping Heavenward.....Prentiss
St. Cuthberts Tower.....Florence Warden
Sweet Girl Graduate.....Mrs. Meade
Sylvia's Burden.....Carrie L. May
Tales from Shakespeare.....Charles and Mary Lamb
Taming a Tomboy.....Von Rhoden
Tanglewood Tales.....Hawthorne
Those Western Girls.....Florence Warden
Three Bright Girls.....Armstrong
Through the Looking Glass.....Carroll
Rime of Roses.....L. T. Meade
"Us".....Molesworth
Very Odd Girl, A.....Armstrong
Very Naughty Girl, A.....Meade
What Tommy Did.....Emily H. Miller
Wild Kitty.....Meade
Wonder Book.....Hawthorne
World of Girls.....Meade

For the Grownups

POPULAR SERIES

Black Beauty.....Anna Sewall
Black Rock.....Ralph Connor
Children of the Abbey.....Roche
Count of Monte Cristo, The.....Dumas
The Hidden Hand.....Southworth
Deemster, The.....Hall Caine
Donovan.....Edna Lyall
Dora Thorne.....Bertha M. Clay
Dukes Secret.....Bertha M. Clay
Earl's Heir, The.....Charles Garvice
East Lynne.....Mrs. Henry Wood
Elsie Venner.....O. W. Holmes
Ishmael.....Southworth
Fatal Secret, A.....Southworth
Felix Holt.....George Eliot
First Violin, The.....Jessie Fothergill
Gold Elsie.....E. Marlitt
Wife's Victory.....Southworth
Inez.....Augusta Evans-Wilson
In Golden Days.....Edna Lyall
Ivanhoe.....Sir Walter Scott
Jane Eyre.....Charlotte Bronte
John Halifax.....Miss Mulock
Lady of the Rubies, The.....E. Marlitt
Lamplighter, The.....Maria Cummins
Last Days of Pompeii.....Lytton
Aikenside.....Mary J. Holmes
Cousin Maude.....Mary J. Holmes
Last of the Mohicans.....J. F. Cooper
Leola Dale's Fortune.....Charles Garvice
Little Minister, The.....J. M. Barrie
Macaria.....Augusta Evans-Wilson
Darkness and Daylight.....Mary J. Holmes
Edith Lyle's Secret.....Mary J. Holmes
Martyred Love, A.....Charles Garvice
Micah Clarke.....A. Conan Doyle
Not Like Other Girls.....Rosa N. Carey
Old Mam'sell's Secret.....E. Marlitt
Homestead on the Hillside.....Mary J. Holmes
Lena Rivers.....Mary J. Holmes
Oliver Twist.....Chas. Dickens
Prince of the House of David.....Rev. J. H. Ingraham
Meadowbrook Farm.....Mary J. Holmes
Millbank.....Mary J. Holmes
Quo Vadis.....Henrik Sienkiewiez
Rosamond.....Mary J. Holmes
Robinson Crusoe.....Daniel De Foe
Romance of Two Worlds.....Marie Corelli
Tempest and Sunshine.....Mary J. Holmes
Scarlet Letter, The.....Hawthorne
Second Wife, The.....Charles Garvice
Sign of the Four, The.....A. Conan Doyle
Silas Marner.....George Eliot
Story of a Wedding Ring.....Bertha M. Clay
Study in Scarlet.....A. Conan Doyle
Sunshine and Roses.....Bertha M. Clay
Tale of Two Cities.....Chas. Dickens
Ten Nights in a Bar Room.....Arthur
Thaddeus of Warsaw.....Jane Porter
Thelma.....Marie Corelli
Three Guardsman, The.....Dumas
Treasure Island.....Stevenson
Two Orphans.....D'Ennery
Under Two Flags.....Ouida
Usurper, The.....Charles Garvice
Vicar of Wakefield & Rasselas.....
Goldsmith and Doctor Johnson
Wasted Love, A.....Charles Garvice
Woman Against Woman.....Mary J. Holmes
Won by Waiting.....Edna Lyall
Wormwood.....Marie Corelli

We are not going to say much about these books, because it isn't necessary. The illustrations—actual reproductions—tell the story of the bindings, and the list of titles tells the story of the contents more eloquently than we can. In the Popular Series you will find many old friends, books that will be read as long as printing and reading endure. In the Boys' and Girls' Series will be found clean, decent stories, the kind that point the way to high morality and clean living.

OUR OFFER

No. 1. For only **two subcriptions** to FARM AND FIRESIDE we will send your choice of any one of these handsome books, post-paid. Subscription price (until December 30th), one year 35 cents, two-year subscription to one address, 50 cents. One two-year subscription counts only as one subscription toward any premium.

No. 2. We will send your choice of any one book without cost, post-paid, if you send us $1.00 for a four-year subscription.

Send All Orders to FARM AND FIRESIDE, Springfield, Ohio

Miss Selina Lue and The Soap-Box Babies

By Maria Thompson Daviess

Illustrated by Ruth M. Hallock

"'But here's the dime, 'cause I didn't hurry'"

CHAPTER III.—How Miss Selina Lue Came to the Bluff

"I don't hold with thinking up bad happenings onto people, for sometime it might kinder hit 'em on some blind side we don't know about and take."

—Miss Selina Lue.

"Now," said Miss Selina Lue with a sigh of relief, "every sting is tied up. The camphire held out fine and there are two pink rags left. Everybody forget all about the yellow-jackets and put your mind on the making of the lemonade. I'll get the lemons." And as she spoke she rose from the top step and started into the grocery. She paused for a moment and ran her eyes over the group huddled along the steps, while laughter strove with sympathy in her expression.

Just at that moment Miss Cynthia came down the hill with her rose hat swinging in her hand and her curls a-ruffle with the breeze. She paused and took in the maimed and bandaged crew of youngsters with round-eyed amazement. And a picture of wholesale catastrophe they presented! Bennie sat on the top step. Tied neatly around his head was a huge white bandage, from which his freckled face peered with swollen solemnity. Ethel Maud drooped on the corner of the step below and nursed a red and enlarged little wing that had been an ear when last Miss Cynthia had beheld it. Luella Kinney choked back sobs with an abnormally fat thumb which she kept fast in her mouth, seemingly deriving comfort therefrom. Around one ankle was tied a blue gingham rag, which set off the pink bit that swathed one of Ethel Maud's brown little feet. Several thin knees had seemingly doubled on their mates in matter of size. The rest of the congregation had suffered with more or less poignancy. And an aroma of mingled tears and camphor rose from the steps.

"Why—why!" gasped Miss Cynthia, "was there a—a cyclone?"

"Oh, no," answered Miss Selina Lue cheerfully. "Just a little yellow-jackets' nest that made a mistake to get mad at the children. They have 'most fergot all about it; fer we was jest about to make a whole water-bucket full of lemonade. Nice day, ain't it, fer drinking sich as lemonade?" Miss Selina Lue bestowed a significant glance on Miss Cynthia, as she spoke, which was very enlightening as to her rational method of treating the hornet cyclone. Miss Cynthia hastened to lend the weight of her mental influence to that of her friend, for she saw that her consternation had started a faint echo of sobs.

"Yes, indeed it is," she affirmed enthusiastically. "I feel as if I could drink several glasses myself. Somebody must draw the water for it right from the well."

"Yes, Bennie can do that while you and Ethel Maud and Luella roll the lemons. There are the glasses to hunt up, and everybody must git ready to help squeeze."

And for at least a half-hour the front of the grocery teemed with cheerful activity. If sharp little pains occasionally obtruded themselves, they found no encouragement from the busy drink-mixers, who squeezed and stirred and slopped and drank to their hearts' content. After they had themselves consumed the third concoction from the yellow rinds, they conceived the idea of adding water and sugar still again and carrying the bucket down for the refreshment of Mr. Leeks, who was a dear friend, to be remembered at what they considered an early stage of the lemonade game.

"Lands alive!" said Miss Selina Lue as she sank on the top step and watched the last scampering pair of bare feet and fluttering rags disappear down the hill, "that's almost the worst ruckus we ever had on the bluff! I was afraid they would all cry themselves sick before I could git they thoughts switched."

"Yes," answered Miss Cynthia as she seated herself beside Miss Selina Lue, exhausted and panting with the efforts she had made in their behalf, "it was pretty bad, and I was out of the direct path of the hurricane. How did you weather the full force?"

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"Well, you know," answered Miss Selina Lue, "I've got 'em trained some. I always did believe that courage is jest to keep going and fergit the pain. I don't hold with making light of suffering, but if distractments will help to ease along, I for one say make a bucket of lemonade."

"Lots of people in the world are agreeing with you on that line, Miss Selina Lue," answered Miss Cynthia as she laughed up into the kind eyes above her.

"Course common sense makes people think alike from Tennessee to Jericho, but ain't it funny how little of it is let loose all along the road? I wished we coulder had more of it in that mothers' meeting we had this morning, which is the cause of all this cyclone-trouble, along of letting the children git away and into a mess of hornets while we talked about how to raise 'em."

"A mothers' meeting?" questioned Miss Cynthia in astonishment.

"Oh, she didn't mean any real harm. She was sent out by some kinder foolish Women's Union. She come into the grocery about nine o'clock this morning. I got a chair quick fer her to puff and rest in from the hill-climb. She looked kinder feeble and pinched, but my! she had fire in her eyes and she het up when she talked."

"Did she come up for—missionary purposes?" demanded Miss Cynthia indignantly.

"Oh, yes, I reckon that is the way she put it to herself. And it was kind of her, but it did set back the work, as this is wash-day. Mis' Dobbs was glad enough to leave her tubs and come over to Mis' Peters's and set and listen 'stid of rubbing, but Mis' Kinney was as put out as could be."

"And what did she have to impart to you about child culture?" Miss Cynthia again demanded.

"Oh, they was all good enough little receipts that most women what has owned a baby a week finds out for herself; but I was glad ter see them took notice of and writ up in fine talk in a book, 'cause how do we know that some woman, some day, might not need sich? I was glad ter have Mary Ellen hear her tell over a few things I have said to her time and time again."

"Well, it makes me indignant to think of her—"

"But wait until I tell you about the husband experiences she began on. The way she talked sounded kinder like training a lion or tiger by a kindness method. I seen Mis' Kinney begin to swell and I got right uneasy. You've saw Mis' Kinney when her temper has riz. She stood up and sorter shet that left eye of her'n, and asked in a pleasant voice:

"'Did I understand that you was Miss Bumpas or Mistress Bumpas, ma'am?'

"'I am Miss Bumpas,' answered the lady, with vinegar and persimmons mixed in her voice.

"'Well,' said Mis' Kinney, 'then I excuses your remarks. Child, some woman have been joking with you about her men-folks. You wasn't talking about no United States husband at all; it must a-been some Chinee man your friend was complaining over.' I was surprised how mild and patient Mis' Kinney was handling her remarks.

"'When women are content to sit with folded hands and let—' The lady got so far, but Mis' Kinney interrupted her in a very unpolite way.

"'Set with folded hands,' she kinder repeated, dazed-like. 'Why, I make mine do the work of four any day, and if Mr. Kinney was to come home and find me a-setting cross-handed—' But here the ruckus began, and I heard it coming down the street lickety-split. Ethel Maud was in the lead, but the others was close behind, and the yelling was like what you called it, a cyclone."

"Oh, how delicious!" gasped Miss Cynthia as she shook with laughter at the picture. "What did Miss Bumpas do?"

"Honey, I don't know. I didn't have time to see. Mis' Peters says she didn't wait fer the ten-forty car, but took to the hill. This is the first breathing minute I have had since. And now I'm worrying 'cause she will think we haven't got a bit of manners."

"Why, you couldn't help the—cyclone!"

"Yes, I know, but you oughter be thankful fer kindnesses done to you, whether they are caps that fit or not. Mis' Kinney was riled and—but it's easy for me to talk who ain't got no husband to bit and bridle like she recommended and— Lands alive! it is almost dinner-time and not a thing on the stove. Set still, honey, while I bring the beans out here to string."

Miss Cynthia sat for a few minutes in smiling silence, and then there floated down from the barn a tenor-whistled rendition of an Aida aria. Miss Cynthia stiffened, rose and called a hasty good-by to Miss Selina Lue, who came to the door to look up the street after her.

"I do wonder why she had to go so sudden-like," she said to herself as she turned again toward the kitchen. Just then Mr. Alan entered the back door with Carrots wriggling in his hands. He was a whimpering bunch of the exact hue of that part of the mother-earth inclosed in the garden fence.

"Lands alive, Mr. Alan, did Carrots turn over his box at last?" exclaimed Miss Selina Lue as she plucked him by the neck of his apron and set him down by the sink.

"He was squirming over the geography of the garden paths when I found him," answered Mr. Alan with a laugh.

Carrots gave one sleepy little purr and rolled over on the floor for a nap.

"Well, such a time as we have been a-having!" remarked Miss Selina Lue, as Mr. Alan followed her to the front of the grocery and they both seated themselves in reach of the river breeze. She began to snap the beans busily.

"I heard about it," answered Mr. Alan, "and I had a drink of lemonade."

"That bucket saved a-many of yells and soothed a heap of pain," answered Miss Selina Lue with a laugh. "But, dearie me, I wonder if Miss Cynthia coulder been stung by one of them yaller-jackets as a reason for leaving so sudden! I saw one crawling around the steps a little while ago. I've just thought of it." Miss

[CONTINUED ON PAGE 27]

". . . the maimed and bandaged crew of youngsters. An aroma of mingled tears and camphor rose from the steps"

A Thanksgiving Sermon

· Written Exclusively for Farm and Fireside

By Rev. Newell Dwight Hillis, D.D.

Pastor of Plymouth Church, Brooklyn

"Let all the people praise the Lord." Ps.

HISTORY tells us that the summer of 1623 was the most unfriendly for the Pilgrim Fathers. The skies refused rain, the Indian-corn crop failed, the vegetables rotted in the fields and, what was most disastrous, the deer and game fled from the Hudson to the region beyond the Connecticut River. In their hour of need Miles Standish and two hunters started west, hoping to find either the wild turkeys or deer, and obtain the assistance of some friendly Indian hunters. During their absence the first snow fell, and the little colony fronted starvation as well as winter. In that hour the only help was in God, and the governor proclaimed Thursday as a day of fasting and prayer. But on that very morning Miles Standish returned, bringing Indians loaded with meat, and at the selfsame hour a ship with weather-beaten sails appeared in the harbor. The good ship was from the home land, and brought food for the hungry, medicine for the sick, weapons for enemies, brought seed-corn, roots, tools, new colonists and relatives long expected. In one hour danger became safety. At ten o'clock the Pilgrim Fathers went to the little log church, but fasting had become feasting, and the prayers turned to thanksgiving. For this great day of the republic was born out of peril and deliverance therefrom. This rainbow rests upon a dark background; the feast of the family is a national memorial to the goodness of God. And saving the Christmas, with its message of the love of God to the children of men, no other day in the year means so much to the republic as this Thanksgiving Day, which celebrates the family as the first of American institutions.

The Home and Thanksgiving

In our country the home is the spring of national life. The genius of the Thanksgiving is the return of the children to the old fireside. In our country the rewards of life are rich, and the sons go to the city in pursuit of their ambition, the daughters marry and go forth to found new altars. In old countries, like Germany and Austria, the children never journey far from the home nest. The same family often lives for ten generations on the same farm. The peril of this new rich land is that the children are drawn away, but the Thanksgiving feast has become a kind of lodestar to pull them in from distant regions. Soon the cities will begin to lose many familiar figures, the railway trains will be crowded, the daughter with her little flock will start homeward, brothers and sisters will take up the old familiar life, and find themselves walking in the old familiar path, back to the little church of their childhood, the gray-haired man who fronts his Thanksgiving feast will look about him upon his children and his children's children, and remember the promise to the Pilgrim Fathers: "In Thee and in Thy children after Thee shall the whole republic be blest." And when on Thanksgiving evening an old man lifts his grandchildren upon his knees and rehearses the stories of his son's, their father's, childhood under the old roof-tree, the scene is one beyond an artist's skill and a poet's pen. For it is Spring sitting in the lap of Winter, a prophecy of the continued life of the founders and the fathers. Our people can lose many days out of the calendar, but Thanksgiving Day is the golden day for the home, the day for the sweet fireside affections, the day for the recovery of lost ideals, the day for the strengthening of old faiths and the renewing of fidelity to the greatest convictions of character and of destiny.

The Harvests and Thanksgiving

Wonderful the past summer through the richness of the harvests. All the people this year have dwelt beneath benignant and rich skies. Secretary Wilson tells us that farmers are to have this year eight billions of dollars, through the fruits of the vineyard and orchard and the grains of the field, through the vegetables, the hay, the flax, the cotton, the corn and the wheat. The Department of Commerce tells us that the factories, the fisheries, the mines and the forests have added seven billions more. Wealth this beyond all the dreams of avarice. England in two hundred years of saving has accumulated ten billions of dollars through foreign investments, and lo, the American people in a single summer will fall heir to fifteen billions of dollars. If our people economize, they could live on five billions and have as much for investment through one year as England has sent to foreign countries in two centuries. What wonderful shocks in the great corn states! What wheat-stacks in the Northern belt! What wealth of vineyards! And what marvelous store of vegetable and fruit in bin and cellar! What if we could picture the harvests in some thirty bins, each bin three thousand miles long, stretching from ocean to ocean, and each bin overflowing with ruddy vegetables, rosy fruits, grapes of purple and white, with wheat, corn, sugar and cotton. And because this treasure comes through the familiar processes of Nature, it is in danger of being received as a matter of course. Luxury sometimes barbarizes men. Abundance weakens their gratitude. What comes richly and easily may be underestimated. It is a time to freshen the jaded sense of gratitude. The American people need to have ardor in their thanksgiving. Other nations have been unfortunate this year and look forward with anxiety to the winter. But for our eighty millions there is enough and to spare. Therefore let all the people praise God and give generously from their surplus.

The Common People Sharing in the Good Fortune

Best of all, the good things of life are being more and more diffused among all the common people. God has interfered in the interests of the millions. The time has come when every new tool, new art, new science, when every comfort and convenience is tested by the question, "Does it serve all the people?" There are no aristocratic things left. Comforts that once belonged to kings and emperors now belong to hod-carriers and miners. Not understanding, men talk about the good old times of Queen Elizabeth and King Louis. But Queen Elizabeth read by a tallow candle, had no matches, no furnace, no railways, no steam, no tropic fruits—in fact, a working man at two dollars a day now has more conveniences that make life worth living than had the kings and queens three hundred years ago. The rain is democratic and so is the sun. The rain insists upon falling upon all the fields and blesses every peasant. The sun ripens the poor man's acre as well as the rich man's estate. And little by little everything in the United States has been made to serve the people. The rich man could always have his magazine and book and paper. Now the paper containing the news of the world must be sold for a cent, so that all the people can have the news. The rich man always had tutors for his sons; the public schools offers private tutors for the poor widows' children! The great masterpieces in literature and science can be purchased for twenty-five cents. Color photography has multiplied the great paintings. The street-car has become the poor man's chariot, and for five cents he has a comfort that cost a king and an emperor a guinea. Everything serves the millions. Property is diffused. Good fortune is for all. All this has brought a new era to our people. Never were the common people coming to a winter with more reasons for thanksgiving with gratitude for the past and courage for the future.

The New Era in Morals and Patriotism

Wonderful, too, the uprising of the people in the interest of patriotism. God has poured out the spirit of righteousness upon the millions, and men are perceiving that the path of obedience to law is the path that leads to national prosperity and peace. Municipal graft has become unpopular. Some boodlers are now in jail, and the rest have gone to Mexico, never to return. Men ambitious for political honor have discovered that they must take up some reform and correct some abuse. Here and there may be cities where there still lurks the old iniquities, but this is like the last rumblings on the horizon of a receding storm that will soon pass and leave the sky clear of murkiness. At length the people are enthroning as leaders men of the highest manhood. "It has been a black year," exclaimed one of the old Bourbon politicians, who finds it impossible to

[CONCLUDED ON PAGE 26]

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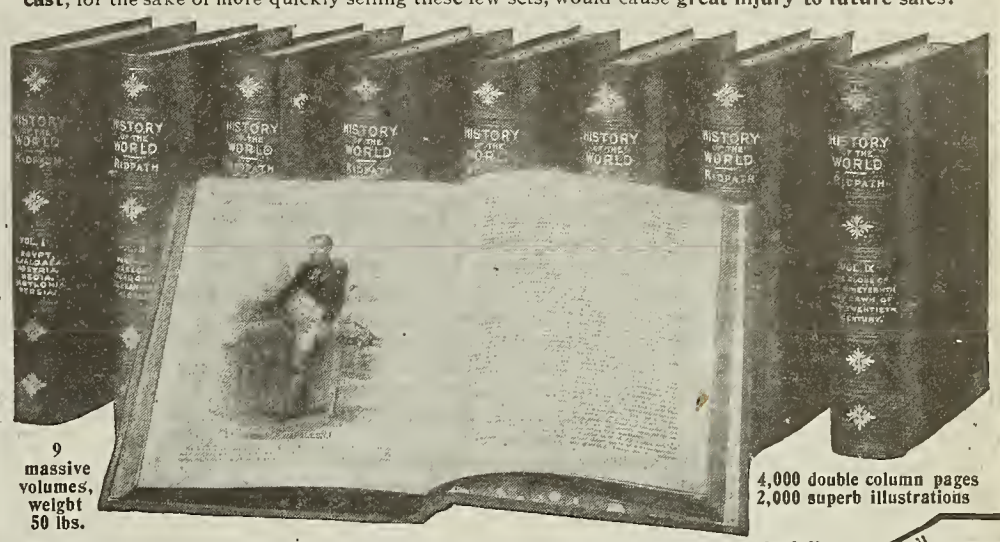

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'Twixt Cup and Lip

A Tale of Sicily

By Louis Tracy, Author of "The Stowaway," "The Wings of the Morning," Etc.

Illustrated by L. F. A. Lorenz

PART I.—Wherein the Filled Cup is Upset

"IS IT true, then, this story that I hear?" said Mrs. Winthrop, whose attention seemed, however, to be given more to the uprooting of a sprig of sainfoin with the tip of her parasol than to the man's reply.

"It all depends. One hears so many stories in a place like this. You, *cara mia*, may have been specially favored."

Rupert Vyner's smiling drawl was meant, perhaps, to veil the insolence of his words; but the pretty woman seated on the lowermost step of the temple of Castor and Pollux at Girgenti was still intent on the destruction of the little pink flower that nestled at the base of a fallen caryatide.

"Yes, I have heard unbelievable stories—some from you," she purred. "But this one comes from a credible person—"

"My dear Cynthia!"

"I am not your dear Cynthia—from a credible person, I say, who told me you were going to marry Mary Hassell."

"What an ungracious gossip it is! Now, if I were your anonymous friend, I would at least have spiced my news. 'My dear Mrs. Winthrop,' I would say, 'have you heard the latest? That nice girl, Mary Hassell, is going to marry that worthless scamp, Rupert Vyner.' Add a few details as to Mary's wealth and Rupert's history, giving the latter its requisite tint of luminous solferino, and you have the yarn exactly as told on the balcony of the Belvidere after dinner."

At last the tiny sainfoin was dislodged. It began to wither instantly, for the sun of Sicily is not only ardent, but destructive.

"Some one ought to warn her," murmured the woman.

"You want to see her curl up like that wretched plant you have just murdered," said the man, and his voice was no longer burdened with a drawl.

"A little honest soil, sufficiently moistened, would revive the flower," was the defiant answer. "We women are like that. A change of scene and a few tears will effect wonders, provided always that we have not been utterly crushed. Mary Hassell may have escaped the worst. You will observe that the steel lance of my parasol has not done any real damage—as yet."

"Confound it, Cynthia, why are you so bitter? I couldn't marry you."

"Why not?"

A flame burned in the violet eyes that were suddenly turned on the good-looking man perched on the tier of steps just above. Its fierceness startled him, but he was incurably selfish where women were concerned, or had behaved as if he were, ever since Eton and Balliol had turned him loose on a forgiving world.

"Is—er—is this a proposal?" he asked, with coy mockery.

"You cannot marry me because half an hour's search at Somerset House would show you—perhaps it has shown you—that my two thousand a year drops to two hundred if I marry again," said Mrs. Winthrop.

A flush of anger deepened the sun-brown on the man's face, yet he forced a laugh.

"Well, we may assume the search, and let it go at that," he cried.

"So Mary Hassell becomes the wife of the Honorable Rupert Vyner. The daughter of a successful builder in Chicago weds the impecunious second son of an equally impecunious earl. Admirable! She is quite an authority on butterflies, I hear, and that is a singularly appropriate hobby, but it is a pity the late Hassell did not teach her to become a better judge of men."

"Thus imitating the late judicial Winthrop," Rupert nearly retorted, for the lady's scorn was of the type that penetrates a thick skin. But he contented himself with saying:

"Hassell was a connoisseur in bricks, I may point out."

Mrs. Winthrop was not to be appeased.

"If I were a man, I should hate to be a woman's dependant," she went on mercilessly. "It comes hard for a woman when she has to ask her husband to pay her milliner's bill, to be growled at if she wants a diamond, to plot and plan if she has exceeded her dress allowance. But we grow used to it. You will soon appreciate our feminine troubles, our little meannesses. You must adopt some of our artifices. When you have a heavy settlement on the Monday after Sandown, you will concoct a new polo pony; there may be other demands that will require even subtler explanations. But you will be a good strategist, Rupert, I grant you that. You will humbug her cleverly."

Vyner stood up. He was no coward; he liked to take his punishment standing, and the unmerited jibe about Somerset House still rankled.

"I have begun already," he said. "She knows I am poor, and it is pretty obvious that I am expensive. Come, Cynthia, let us join the revelers. The professor is inspecting the lunch-baskets as if they were rare specimens of Sicilian majolica. And why are we quarreling? Honestly, you ought to congratulate me—and yourself! You forget the gipsy strain in my family. I am a born adventurer, the sworn friend of all pretty women, and consequently your devoted admirer. No, I'm not going to let you stick any more barbed shafts into me. Already I am beginning to feel like a St. Sebastian in flannels, so I shall chatter incessantly until we reach the picnickers, when kind convention shall charm away your frowns, and you will smile and smile and be a woman."

Mrs. Winthrop choked back her fury. Its venom would not diminish because it was bottled up for a space. They had not gone fifty yards down the hill ere she was again the "delightful Cynthia Winthrop" of her wide circle of friends.

"By the way," she said in her well-pitched society accents, "where is Mary Hassell? I don't see her."

Vyner was not deceived. He understood the bottling process and its promise of future mischief. But he was ever ready to trim his sails to the breeze of the moment.

"Running after a blue admiral," he said cheerfully.

"Or a death's-head moth," she snapped under her breath.

And the woman's guess was nearer the truth, for Mary Hassell was sitting behind one of the four great pillars of the temple, trying vainly to recapture a lost phantasy, a butterfly dream from which all the glow and rapture had fled when once it fluttered out of existence in a mist of tears. She had not meant to be an eavesdropper. The pursuit of some winged miracle of color had led her around the base of the little hill capped by the temple, and the sight of Rupert's well-poised head suggested an effort to enmesh him in the big green net she carried. Creeping up with stealthy glee, she heard her own name. A few words sufficed. She cowered at the foot of a pillar, and listened in dumb anguish to Mrs. Winthrop's taunts and her lover's callous admissions. She was too stricken to understand that he might not be so black as he was painted—that he would hardly defend himself against the onslaught of her jealous rival. But she was proud and self-reliant. After the first shock had passed, she resolutely dried her eyes, went down the hill, and approached the feasters by a roundabout route.

Vyner strolled to meet her.

"What's the matter?" he asked instantly.

"Oh, nothing," she said. "I pursued a six-spotted burnet into a hollow, and fell in with a cloud of gnats. Have they stung me?"

She met his gaze unflinchingly, for Mary, too, could be an actress when occasion demanded.

"No," he laughed, "unless freckles count. Is the burnet six-spot diamonds or hearts?"

"Hearts, I think," she cried, and nodded to Mrs. Winthrop, whom she had not met that morning, as Mary and her mother lived in the Hotel des Temples.

The Honorable Rupert might be a fortune-hunter, but he was assuredly a most devoted cavalier. If Mary were the prettiest woman who ever crossed the seas he could not have acted the rôle of fond lover more assiduously. It must not be assumed that Mary was a fright—far from it. Her somewhat irregular features were redeemed by those limpid blue eyes in which Vyner had just surprised the restrained tears. She was of middle height, slim and wore her clothes with the air that the American girl has stolen from the Parisienne. At any rate, her perfections evidently appealed to Rupert. He seemed to be quite concerned when the picnic ended, merely because he had promised to go quail-shooting that afternoon, and might be late for dinner. Mary, for her part, was glad of the interlude. She was fully resolved to tell him that their engagement must be broken off, but before that trying interview took place she wanted to be certain that she was strong—she must first conquer her agony in the seclusion of her own room.

Vyner hurried to the railway, where a man met him with gun and cartridge-bag. A short journey brought the pair to the wayside station of Comitini; thence they followed a steep mountain track to a plateau on the road to the village of Aragona, a rendezvous known to generations of quail during their northerly flight in early spring. Birds were plentiful, and the Englishman had an hour of first-rate sport. At last the barrels of his breech-loader became too hot to hold, and he sat on a rock while the weapon cooled somewhat.

Luigi, the guide, opened a wicker-covered bottle of wine which had been slung across his shoulder, and the two drank and smoked. Being a Sicilian, Luigi took the keenest interest in his padrone's affairs; forthwith he surprised Vyner mightily by a simple question.

"Why was the beautiful American signorina crying to-day when all the ladies and gentlemen went to the temples?" he asked.

"Crying—the Signorina Hassell?" demanded Rupert in amazement; he knew that there could be no mistake as to Mary's identity, since Luigi had often led her mule during excursions into the interior or along the coast, and, in the vocabulary of Girgenti, all ladies who paid well were beautiful. Moreover he recalled his own whiff of doubt.

"Oh, yes, signor," came the ready explanation. "I was watching from a distance, to make sure of the time you started for the station. You and an English signora from the Hotel Belvidere were sitting on the steps of the Tempio di Castore e Polluce, and the Signorina Hassell climbed the hill on the other side with that strange green net in her hand. All at once she stopped, hid behind a pillar and wept. She wept for many minutes after you and the Signora Inglese had gone. Then she went away, but —*Bedda Matri!* [patois for "Madonna"] what have I said that the *gnuri* [patois for "signor"] should be so disturbed?"

Vyner, who was white beneath the tan, sipped a little of the red Terreforti meditatively. He was a good sportsman, and could take a reverse with stoicism. But this, in the forcible dictum of the boxer, was a knock-out blow, and he knew it.

"Do you think the signorina heard what we were saying?" he asked quietly.

"Si, signor, I am sure of it." Then, cursing his own garrulous tongue, Luigi tried consolation. "It is hard to please women," he said. "A wise man laughs and turns to the next one."

"Then I must be wise," quoth Rupert. "I will not shoot any more to-day, Luigi. String the birds together and follow. I shall walk back alone to Comitini."

Picking up the unloaded gun, he set off at a rapid gait. He made up his mind on the spur of the moment. There was an earlier train to Girgenti than that by which he had intended to return. He would go straight to Mary, tell her all that he had left untold to Mrs. Winthrop and, if she refused to believe him, leave Sicily as speedily as possible. He was sure that Mary loved him; he was even more sure that he loved her; the only question he could not decide was a grave one—would her love withstand the strain of Mrs. Winthrop's malice?

By accomplishing four miles in an hour over the rough mountain paths he could just catch the train at Comitini. Luigi, who had never willingly gone such a pace in his life, would reach Girgenti three hours later. In fact, the guide made no attempt to emulate Rupert's hasty strides. The sun still being high over the hills of Eraclea, the happy-go-lucky Sicilian rolled another cigarette, found a soft rock and lowered the wine level in the bottle of Terreforti.

Time slips away comfortably under such conditions. At last, Luigi thought he might as well saunter in the direction of the *stazione*, where there was a wine-shop and a tree-shaded bench on which toilers might rest a while. Tying the quail to the strap of the flask,

"He struck Vyner viciously across the shoulders with the gun-barrels"

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he crossed the plateau, climbed a short rise and entered a little pass beyond which a valley dipped rapidly toward Comitini. Fortunately for him, as it happened, a clump of wild olives choked the mouth of the cleft. The trees might have been planted there by Nature for the special benefit of artists. They framed an enchanting picture of land and sea, with the magnificent outlines of Greek temples and medieval castles crowning the distant cliffs. But Luigi had seen this panorama as long as he remembered seeing anything, and his eyes took far more interest in human beings than in scenery, even the glowing landscape of the plain of Acragas.

At that hour, with the slanting rays of the sun still lighting the gorge, remote objects were visible with a marvelous distinctness. Luigi was still in the shade of the olive-grove when he saw a remarkable procession wending its way up the hill—that is, it was remarkable to a native. The strenuous Anglo-Saxon or American *forestiere* [stranger] might have paid small heed to it, but the Sicilian knew that the little cavalcade was approaching at a pace that betokened the unusual.

He was startled, though he hardly knew why. He drew back among the trees, and waited until the men and mules emerged from a tiny hollow in which they were hidden momentarily. Then they reappeared, and Luigi's swarthy cheeks blanched, his sloe-black eyes distended with terror and he crossed himself with the air of one who sought help against the powers of evil.

Two words he gasped, "Dio!" and "Briganti!" and for a few seconds his knees knocked together in sheer fright.

Then he fled, doubling like a hare behind the trees, and scrambling for dear life among the rocks on the steeper side of the pass. He was not content until he reached an aery almost inaccessible to a goat. There he crouched, panting, stammering a weird medley of oaths and prayers, swearing now by Greek gods and anon appealing to the Virgin Mother. But if he was in mortal fear, he was still all agog with curiosity. He wriggled forward on his rocky perch until he was able to peer through the roots of some tall grasses down into the road beneath. Soon the cries of men urging unwilling beasts to topmost effort came from beyond the olives. An armed man, mounted on a big Spanish mule, dashed into full view, but halted directly in front of Luigi's hiding-place. This was evidently a scout, and it was easy to see the relief on his expressive features when he found that the pass was free of other travelers. He whistled shrilly, an ear-splitting, long-drawn note, and, to Luigi's unspeakable anguish, spurred his mule directly up the face of the opposite ridge.

His action told the trembling guide that the brigands meant to leave the road at this point and break away into the arid fastnesses between Alexandria della Rocca and Casteltermini; but, to Luigi, an excruciating doubt remained. There was now a chance that he would be spied by some hawk-eyed mountaineer from the crest of the hill, which was almost on a level with his own refuge.

But a man can lie very flat when to be seen means death; Luigi, big human lizard sprawling on his ledge of rock, scarcely daring to breathe lest he sent a pebble rolling down, knew that if these bandits discovered his presence they would kill him without mercy. For the evidences of recent tragedy were unmistakable when the rest of the gang gained the pass. The two leading mules each bore the body of a man either dead or insensible—dead, in all probability, as each hapless burden was tied to the saddle without any pretence of care, and head, arms and legs wagged listlessly with every movement of the animal. A man bestriding the third mule seemed to have sustained a terrific blow on the head; he clung limply to the high pommel; blood was trickling down his face, and a comrade was supporting him. Immediately behind rode Vyner, tied, gagged and blindfolded, but apparently not seriously injured, while the man who marched by his side carried the barrels and shattered stock of the breech-loader.

Therein lay the key of this drama without words. For some extraordinary reason—seeing that Sicilian brigands have not laid violent hands on any foreigner during the past two decades—the Englishman had been attacked while descending the Comitini gorge. Though his assailants, eight in number, were armed with rifles or revolvers and wicked-looking Sicilian knives, they had striven to capture him without endangering his life; but Vyner was quick-witted and alert, equipped with well-trained muscles and skilled in every game that demands the instant concert of eye and hand. He had swept his unloaded gun with deadly effect at least three times among the waspish crew before they brought him down. It was imperative that all traces of the fray should be removed, so their mules were laden with some who meant to walk, while perchance the gaily-attired rascal who walked near Vyner meant to have ridden.

Be that as it may, this gorgeous personage was in a vile temper. When the mule breasted the hill, and his captive failed to lean forward in the saddle, he struck Vyner viciously across the shoulders with the gun-barrels. Brigands must be brutal to a certain extent if they would inspire fear. In the present instance, there was more than brutality in the blow. It was an earnest of future vengeance.

Luigi, clinging to his rock, saw these things subconsciously. What he really looked for was some slight indication that his retreat was discovered, when his only chance of ultimate safety would lie in the successful dodging of a fusillade while he climbed the brow of the cliff and raced madly away.

But the scout and the seeming leader of the party were mainly concerned in watching the other lip of the pass, over which they expected Luigi's slouching figure to appear at any moment. Indeed, the scout was left behind when the main body vanished. The rattling of unshod hoofs died down, Luigi's straining ears heard the last of them as they rounded a shoulder of the hill, but still the alert vedette kept watch and ward on the defile. In all likelihood, he did not remain there more than five minutes. To Luigi the vigil was a foretaste of the centuries he hoped to spend amidst the cleansing fires of purgatory.

Finally, the rear guard made off at a canter after his confederates, and Luigi nearly fainted with relief. When he recovered his senses he noticed that the sun was yet well above the hills, else he would have vowed during the remainder of his life that he had been glued to the side of the cliff for hours.

Even then he could not move. He had not counted all the men when first he saw them in the valley. He was well aware that they knew he had accompanied the English signor; indeed, he had an uneasy feeling that his own bragging among the *mala gente* of Girgenti—which is the Sicilian way of describing the town's inhabitants—supplied the information on which the brigands had acted. But, above all else, he shrank from being benighted on the mountains, so at last he summoned up courage enough to crawl out of his haven and descend cautiously to the farther edge of the grove.

The path was clear. He began to run. His own company was abhorrent, the sound of his footsteps a menace. He risked his neck many times, but still he ran as he had never run before in his life.

Poor Luigi, with the terror of the brigands behind and the dread of the Maffia's vengeance on an informer in front! It was but a broken tale that he sobbed forth to the *carabinieri* when he staggered into Comitini, yet it was a marvel of coherence when compared with his statements of a later hour at Girgenti, for, by that time, the brigands were dim wraiths, whereas the dark shadow of the Maffia grew more ominous as his scattered thoughts took shape.

[CONCLUDED IN NEXT ISSUE]

A FOOD DRINK

Which Brings Daily Enjoyment

A lady doctor writes:

"Though busy hourly with my own affairs, I will not deny myself the pleasure of taking a few minutes to tell of my enjoyment daily obtained from my morning cup of Postum. It is a food beverage, not a stimulant like coffee.

"I began to use Postum 8 years ago, not because I wanted to, but because coffee which I dearly loved, made my nights long weary periods to be dreaded and unfitting me for business during the day.

"On advice of a friend, I first tried Postum, making it carefully as suggested on the package. As I had always used "cream and no sugar," I mixed my Postum so. It looked good, was clear and fragrant, and it was a pleasure to see the cream color it as my Kentucky friend always wanted her coffee to look, like a new saddle.

"Then I tasted it critically, for I had tried many 'substitutes' for coffee. I was pleased, yes, satisfied with my Postum in taste and effect, and am yet, being a constant user of it all these years.

I continually assure my friends and acquaintances that they will like Postum in place of coffee, and receive benefit from its use. I have gained weight, can sleep and am not nervous."

Read "The Road to Wellville," in pkgs. "There's a Reason."

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

Elevator Travel

EVERY day the eight thousand passenger-elevators in the dwellings and great office buildings on Manhattan Island carry six million five hundred thousand passengers up and down. This is about twice as many passengers as are carried in all the surface, elevated and subway cars in the entire city of New York during the same period.—G. A.

A Thanksgiving Song

BY FRANK H. SWEET

WHENCE comes this song of harvest cheer,
This hymn of praise unto the sky,
So strong that all the world may hear
It rise on high?

'Tis grateful people thanking Him,
Whose hand hath led their steps aright,
A faithful guide, however dim
And dark the night.

What is the song of praise they sing,
In which the people all take part;
So full that in its strength they bring
A nation's heart?

'Tis the Thanksgiving harvest prayer
Of gratitude for ample yield,
For tender love and watchful care
O'er home and field.

A Brave Boy

BY CORA A. MATSON DOLSON

I'M NOT afraid, out in the dark,
Not even if a dog should bark
Or scurry toward me! What's the use?
A "fraid-cat" is a silly goose!

But I want some one there with me,
Because 'tis best to careful be;
It's not that I'm afraid, at all,
But in the dark there I might fall
And maybe break my leg or arm
Or do a lot of other harm.

Perhaps my head would hit a stone
And I might die there, all alone.
Sometimes a boy has had a fit;
'Tis best to be prepared for it,
And see that some one else is by—
But in the dark, afraid? Not I!

You think I am? Why, just you see!
A baby, maybe, two or three
Or four years old, might be afraid—
But what if some big trap was laid
There in the dark, then in the night
A boy'd be in a pretty plight,
Caught in that trap, as he might be,
With not a soul around to see,
Or help him out, or hear him call—
I say I'm not afraid, at all!

It's merely prudent not to go
Alone at night; you know it's so!
If I could see to climb or crawl,
I'd dare—I'm not afraid, at all!
There's no use talking, though, with you;
You'll think a thing, and call it true!
It's just a story you have made
And stick to, that I am afraid!

Staying Up

HE WAS quite smart for one so young, this little Eskimo;
Once he was ordered off to bed, and did not want to go.
He rubbed his eyes in thoughtful mood, and slowly shook his head.
"Oh, father, let me play at least a fortnight more," he said.

ALONZO RICE.

No cold can penetrate the fleecy warmness of

HIGH ROCK STANDARD FLEECE TRADE MARK

High Rock Fleece-Lined Underwear

The ideal winter underwear for Outdoormen, City men and Traveling men. It never "sheds" or stretches. It never "pills up" after washing, and it is guaranteed not to shrink or get out of shape.

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yet it will outlast most underwear that costs twice as much. Look for the RED trade-mark.

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is sold by dealers everywhere. If yours should not sell it, let us know. We will see that you are supplied quickly and conveniently. We will also send you our attractive

FREE BOOK

Send for it today. It will tell you many interesting things about underwear manufacture which you probably do not know.

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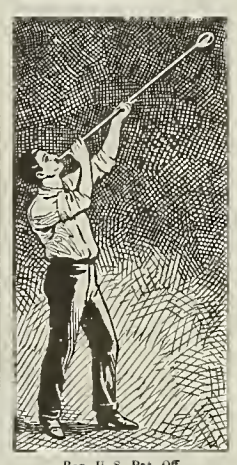

Reg. U. S. Pat. Off.

Macbeth Pearl Glass is the only kind of glass that would ever be used for lamp-chimneys if every maker considered his interests identical with those of the user.

It is only the user's interests, however, that you have to consider.

See that my name, Macbeth, is on the lamp-chimneys you buy, and they won't break from heat.

One quality: to get the correct size and shape for any burner, have my lamp book. Free. Address

MACBETH, Pittsburgh.

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It tells how you can easily obtain, **without cost,** hundreds of useful and beautiful articles. It is a sumptuous book, elegantly illustrated, and will be sent without cost on request. Address

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The *proper* shoes for men: shoes that *look, fit, feel* and *wear* right.

Made of *selected* leather—leather that is best by every *test.* Correct in style. Made by the finest shoe makers, in the best equipped factory in existence.

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shoes are "built on honor"—built for *combined* style and service—built for absolute satisfaction and lasting comfort. Biggest values you can ever hope to get for the money.

There is an Honorbilt style that will exactly suit you and fit you.

Ask your shoe dealer; if he hasn't it, write us. Look for the *Mayer Trade Mark* on the sole.

FREE—If you will send us the name of a dealer who does not handle Mayer Honorbilt Shoes, we will send you free, postpaid, a handsome picture, size 15x20, of George Washington.

We also make Leading Lady Shoes, Martha Washington Comfort Shoes, Yerma Cushion Shoes, Special Merit School Shoes and Work Shoes.

MILWAUKEE Mayer CUSTOM MADE

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Home-Made Novelties for Christmas

By Evelyn Parsons

With the coming of Christmas, the same old question confronts us: What shall we give so-and-so? And oftentimes instead of Christmas being a time of rejoicing, it is a time of worry and hard work. So many are apt to think that a gift will not be appreciated unless it is something which costs a great deal more money than their pocket-books will allow. The cry is, "I simply can't give such a cheap-looking gift. Whatever will she think?" But stop a minute, dear reader. Let me whisper a word of comfort in your ear. It is the little gift made by your own hands that your dear friend is going to treasure and appreciate. Something which you have made yourself—no matter whether it cost five cents or five dollars—something on which you have spent willing hours of tedious work, something which goes to your best friend with sincere, happy Christmas wishes and a few loving words, that "something" is the ideal Christmas gift.

Every one of the dainty embroidery designs illustrated on this page would make acceptable Christmas gifts, and the deft needleworker will find all of them especially easy to make. If you are planning to give your friends a gift with a great deal of hand-work on it, don't put off the making of it until the eleventh hour and then stay up until one or two o'clock in the morning to finish it before Christmas. Now is the time to start and, as it takes a few days to receive the patterns after placing your order, it will facilitate matters if you order your designs immediately.

The oval platter doily would make a very attractive and useful present for a bride-to-be or for mother. It is made of two pieces of linen, the embroidered top and the under piece open through the center. This under piece is made in two sections with hemmed edges and one is slightly lapped over the other, to allow an asbestos mat to slip in. The flower-and-ribbon decoration is worked and then the top and under piece are basted together, and the buttonholing is worked through the two. It is well to shrink the linen pieces before buttonholing together. If desired a plate doily and centerpiece in this same attractive design may be obtained from the embroidery department at Springfield. A plate doily (twelve-inch size) stamped on linen is twenty-five cents and the perforated pattern fifteen cents. The centerpiece (twenty-two by twenty-two inches) stamped on white linen is sixty-five cents and the perforated pattern thirty-five cents.

The four-sided bag is not at all hard to make. The coronation braid is being used extensively on the expensive embroidery displayed in the big New York shops. No doubt its popularity is due to the fact that it can be put on rapidly and is so effective when finished.

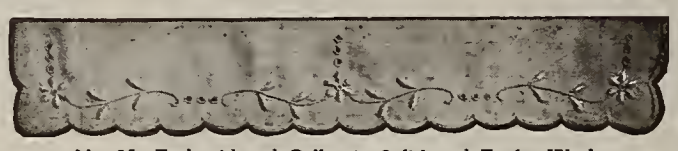
The woman who has a special fondness for needlework can't help but appreciate this unusually good-looking bag. It opens out very easily and will hold so many, many things. These large work-bags also make convenient shopping-bags.

The shops are showing many attractive Christmas novelties, and among some of the embroidered gifts are the daintiest of dainty embroidered pincushions. Of course they are not cheap by any means—nothing ever is that is hand-made. So the woman who has the opportunity to purchase the pattern for making one of these charming embroidered pincushions ought to consider herself very fortunate. Any girl who takes especial pride in her own room would be delighted to receive a small cushion like the one shown on this page in No. 57. Large pincushions look bulky and awkward on a small dresser and are not at all appropriate for a girl's room. The nice thing about this cushion is that when it becomes soiled the ribbon may be slipped out and the top and under piece laundered to look as good as when new.

NOTE—We urge that you order these designs at once. The Christmas season is a busy one for us and if you put your ordering off until the last minute, it will be impossible for us to fill it until after the holiday season. Be sure to inclose sufficient money. In ordering the collar, state the size desired. May we also ask that your name and address be written distinctly. So many times the address is left off and our readers wonder why they have not heard from us. Remit by money-order, currency or stamps, and send your orders direct to the Embroidery Department, Farm and Fireside, Springfield, Ohio.

No. 54—Oval Platter Doily (13 x 9 Inches)

Stamped on white linen, 30 cents.
Perforated pattern, 15 cents.
Paste for stamping, 10 cents.
We provide an asbestos mat to fit the doily. To protect the edge of this mat, bind it with a tape or strip of cloth. This binding may be stitched by machine. Price of asbestos mat, 8 cents.

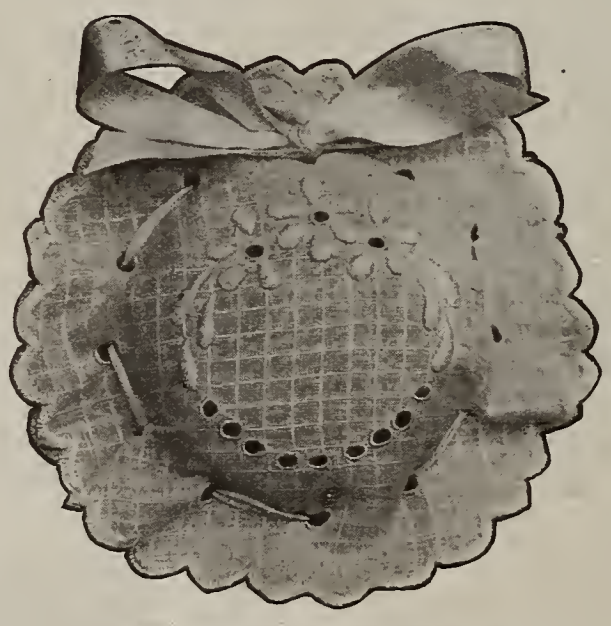


No. 55—Embroidered Collar in Solid and Eyelet Work

This will prove a welcome gift for the girl who has a craze for dainty neckwear. It gives such a smart, neat appearance to a tailored waist, and to the well-dressed woman it is almost indispensable. Delicate colors introduced in the embroidery are very effective.
Stamped on linen (sizes 12½, 13, 13½), 20 cents.
Embroidery-cotton, per ball, 10 cents.

No. 56—Four-Sided Work-Bag

Of colored linen with butterfly design carried out in white coronation cord and solid white embroidery. It is a commodious bag and a particularly good shape, as it opens out so nicely. It should be lined with some white wash material (dimity is suitable) and the ties should be of white wash ribbon. The work with coronation cord goes so quickly that the whole bag may be decorated and made by a deft needleworker in an afternoon.
Stamped on linen (blue, pink or lavender), 55 cents.
Coronation cord and thread, 20 cents.



No. 57—Small Pincushion of Embroidered Dimity

The two pieces are laced together with ribbon. If you have a particular friend who travels a great deal, she is sure to appreciate this attractive and charming Christmas gift. It also makes a dainty gift for a girl and will give an attractive touch to her dressing-table or bureau. One should always be careful when giving presents of this kind to select colors which will harmonize with the furnishings of a room.
Stamped on dimity, 25 cents.
Thread, 5 cents.

No. 58—Blotter

Of golden-brown ooze leather in cut-work and green embroidery, with lining of brown taffeta pasted under cut spaces. The dots and outline are embroidered first with a double thread of green filo silk. The flower petals are then cut out and the lining of silk pasted beneath. The leather is then pasted to stiff card-board and tied to blotting-paper with leather strips.
Stamped on ooze leather, 30 cents.

No. 58—Blotter of Golden-Brown Ooze Leather

This attractive leather blotter makes an acceptable gift for a man to use at his office desk. If you are in a quandary as to what to give your brother or a man friend, why not select this attractive ooze-leather blotter? It is also pretty enough for a girl's desk or a college girl's study table. Placed in a dainty box and wrapped in white tissue paper and tied with holly ribbon, it would make a most charming and attractive Christmas gift.

A Thanksgiving Sermon

[CONTINUED FROM PAGE 23]

understand this uprising of the people. When selfish and corrupt men can find nothing to be thankful for, it is a time for patriots to rejoice. A new era in politics has come to the republic. Henceforth there is to be justice in the laws, equality of privilege, an even sharing of the burdens and a more equitable distribution of the proceeds of labor. Virgil made his hero slay the serpent as it crawled over the threshold of the palace. And during the last year there has been a national and municipal house cleaning and the slaying of vermin and things that creep and crawl and have hitherto left slime upon the threshold of the very temple of God. Henceforth these buildings associated with patriotism, law and justice, are to be cleansed and kept like unto the temples of God.

The Intellectual and Moral Movement

And this year, also, the upward movement has been world-wide. The republic has become the educator of foreign nations in free institutions. Think of it! A new constitution, representing government under written laws, for China! Persia, too, has awakened, thrown off despotism, reorganized their government and started upon an era of reform. Even the "Unspeakable Turk" has been regenerated. Abdul "the butcher" and his harem have been exiled from Constantinople. A constitution for the people has been adopted. After centuries of tyranny, cruelty, assassination and religious warfare Turkey has rewritten her laws, granted religious freedom and liberty for the press and endowments for schools for the diffusion of wisdom and knowledge. The blot on the 'scutcheon of Europe has been washed away. It is as if the last barrier to progress was swept out of the channel of events. Verily, it has been a good year to live. What gains have been made in science and invention! What prophecy of the future in man's new mastery of the air! What food products are foretold in the new discoveries made in the realm of grains, of vineyards and orchards! Man seems approaching with swift steps the era when every force in land and sea and sky shall bow down like a well-trained servant and obey him. Looking toward the harvests, let the people thank God. Looking toward the American family and home, the American school and college, toward the library and the gallery and the market-place and the church, everywhere we find tokens of progress and signs of the approval of Almighty God. More gains have been made in this single twelve months than in the first fifty years of the last century. The blessing of God hath been upon the nation. And it is a time for the people to come together, and with one accord to praise God, while old men and young men and women and little children cry out, "The God of our fathers has dealt with us as He has not with any other nation."

Home-Made Novelties for Christmas

And now a word about the tying up of a Christmas gift. A handkerchief wrapped in common brown paper will of course look anything but attractive and suggestive of Christmas, and when you mail it you will undoubtedly think "How could such a pretty handkerchief look so skimpy and common?" Why one of the greatest joys in giving presents is in wrapping and tying them up just as daintily and effectively as possible. Oh, the mystery that lies behind that first outside brown covering! But the eagerness is increased tenfold when this is pulled off and another wrapping of white tissue paper and red ribbon is revealed.

Two or three embroidered collars, like the one illustrated in No. 55, would look twice as pretty if placed in a neat box with a piece of delicate pink or blue tissue paper under them. Wrap the box in white tissue paper and tie it with holly or red ribbon. Just before tying the bow fasten your own card or a little Christmas card on the ribbon or the card may be placed inside the box, just as you desire.

Then there are very charming Santa Claus holly wreaths and Christmas-bell seals to stick on the outside of a package; so if you have to send your presents by mail and wrap them in strong brown paper, a few of these seals stuck on the package will give the desired Christmas touch. They may also be used to seal the inner wrapping of white tissue paper.

There are labels which come with the words, "Please don't open until Christmas."

One of these labels used instead of the seals will warn the recipient that the package contains a Christmas gift and that it must not be opened until Christmas Day.

Miss Selina Lue and the Soap-Box Babies

[CONTINUED FROM PAGE 22]

Selina Lue's hands were idle from anxiety as she peered up the hill, with distress in her usually serene eyes.

"No," said Mr. Alan calmly, "I don't think it was a yellow-jacket that caused her flight. It might have been a gray serge," he added under his breath.

"Well, I jest feel too uneasy to rest calm until I find out," said Miss Selina Lue. "You, Bennie, come here a minute! I want you." And she hailed the wounded hero as he straggled up the road with the empty bucket.

"You ought to teach her to negate pain as you do the kiddies," was Mr. Alan's vindictive remark, which failed to lodge in Miss Selina Lue's kind mind; but he seemed glad when Bennie enthusiastically consented to run up to the hill mansion to take a bottle of camphor and find out about the possible accident. He went so far as to hand him a dime, with the entreaty that he hurry and relieve the anxiety of—Miss Selina Lue.

"I know I'm foolish," said Miss Selina Lue as she began on the beans again. "I don't hold with thinking up bad happenings onto people, for sometime it might kinder hit 'em on some blind side we don't know about and take, but that child is jest the kern'l of my heart. She is one of the whys of me, Miss Cynthia is, since I come to the bluff."

"Why, I thought you had always been—the bluff, Miss Selina Lue," said Mr. Alan.

"Oh, no, indeed, I've only been here eight years," answered Miss Selina Lue, and her eyes rested on the far dim hills across the river. "Just eight years and two months, for Ethel Maud was born the night after I got here."

"How on earth did they get along without you before you came?" asked Mr. Alan with sincerity in his tone.

"Well, they wasn't so many babies on the bluff then—jest Bennie, though he was a mighty poor specimen when I took a hand with him. They've kept a-coming along in bunches ever since, bless 'em!"

"How did you happen to come—to them?" asked Mr. Alan gently, for he saw that Miss Selina Lue's mind was back in the past.

"Yes," she answered softly, "it do look like the little unborned things called me—me a-setting lonesome up on a side of one of the hills over in Warren County. I didn't have nothing but some land, a empty home—and a full graveyard over by the garden wall. It was jest about sundown one day and I was a-fixing round the graves—the wild vi'lets was a-blooming on Adoniram's fer the first time—when I looked up and seen the light of glory on the hills. And somehow, I don't know, but all of a sudden, the grieving love in me turned into love of God that He jest poured down into my heart, and I was so filled with it that it hurt me not to be a-giving some of it out to other folks. The next day I sold the land and home to Cousin Dave Elkins, and hitched up and started down to where I could find folks to need me."

"I'm surprised you got this far," said Mr. Alan, his voice a bit husky as he looked into Miss Selina Lue's face of beautiful tenderness.

"Well, it was with a-many a stop," she answered as her face broke up into a shower of smiles. "It took two full weeks to make the seventy miles, and if ever a woman found things a-waiting to be did it was me as I come along the road."

"Tell me about it, please do," begged Mr. Alan.

"Well, let me see! I was all hitched and ready to start by sunup. I had been real stern with myself about leaving 'most everything behind me packed up in a corner of the garret, but I never had any mind not to drive Charity's mother down before me, 'cause no matter where a body lands, a cow is a convenience to have along."

Mr. Alan laughed and moved a step nearer. "How far did you get that first day?" he inquired.

"Oh, only as far as Cousin Patty Sedberry's. They had word and was a-looking for me. I heard the children barking like dogs when I turned in the gate. It was the worst crowd of whooping-coughers I have ever saw. It was a mercy I got there when I did, fer it took me three days' dosing with onion-syrup and brown sugar, which she had never heard on, to git 'em where they could pull through. I left 'em squeeky, but on the road to mend. I was so glad I found a job of helping that I could wade through so well."

"If you couldn't wade through people's troubles, Miss Selina Lue, you would be sure to strike out and swim," said Mr. Alan.

"Well, I found a trouble down the road to Mis' Deacon Jennings' that come mighty nigh going over my head, and I had to hold on tight to the hand of God and try and pull against the tide fer them and me, too. It was a baby's funeral—she had six living boys and jest this one little woman-child. Seemed like I sewed stitches in my own soul as I made the little white shroud."

"But I'm glad you were there to—make it," faltered Mr. Alan.

"So was I, and I helt 'em up all I could in the arms of prayer. But it was the ice-house's caving in that saved her."

"The ice-house's caving in?"

"Yes, for it broke two boys' arms and one collarbone. You see sorrowing can go hand in hand with work all day, and they can lie down together at night—but they both sleep."

"Yes," said Mr. Alan thoughtfully, "that is as true as it sounds. But where next, Miss Selina Lue?"

"Then next I got to Uncle Jere Sommers in time to witness the calamity of a man that's been deaf thirty years gitting his hearing back agin by a hearty sneeze."

"Do you call that a calamity?" asked Mr. Alan. "Why—"

"Well, whatever people don't want to happen to 'em is a calamity when it comes," answered Miss Selina Lue. "He said he had been minding his own business and not having to bother with other folkses affairs for more'n thirty years, and now he had to hear every fool rooster in the neighborhood express his opinion as to whether day was nigh or not. He jest wrapped his head up in a old flannel shirt and went about his work as usual, hearing only what the shirt wouldn't stop. He was mad plumb through and he had 'em all walking around on they toes like crawfish. It's strange how one person's crank can turn the wheels of the whole family."

From the back of the grocery came a faint, sleepy chirp.

"There now, they are all a-waking up," said Miss Selina Lue. "But maybe they'll be quiet while I tell you about the bridegroom and the cake that I had the trouble with at Carrie Louise's wedding as I come on over the ridge. It always did seem a shame to me how folks hand a bride around on a feather, so to speak, and jest let the poor groom shift fer hisself, like he were some sort of a criminal. Andy were all dressed in his wedding-clothes about four o'clock and a-waiting. Somebody oughter been setting by ter keep his mind offen hisself; but the poor boy wandered down the back hall to the porch to git a drink of water to squench his thirst and help him swoller the lump in his throat, and had the misfortune to git mixed up with the wedding-cake what they had set on a table in a dark corner by the door to be lit up with candles. When I got there they was both on the floor, and he had run his foot plumb through it and was gormed with frosting something terrible. I used soft soap and patience, and by hard work I got him and the clothes ready to stand up at the wedding. Then I whirled in and mixed another sixty-egg cake in a milk-crock and baked it in a dish-pan with astonishing luck. I frosted it liberal with curlycues, and me and it both was ready by the time folks got to coming." Miss Selina Lue chuckled at Mr. Alan's shout of amusement.

"Wait," he said, as she rose to go in and quell the calls from the soap-boxers, which were fast becoming a demonstration. "Tell me some more; let them roar."

"There's not much more to tell," she said, as she looked up and down the quiet street. A temporary lull had descended upon the back regions. "I drove in here along about sundown. I knew that Tom Withers a Warren County man, kept a grocery somewhere on the bluff. But it wasn't like this is now. They was a crowd of loafers setting on the steps talking loud—and they was a counter back there where the soap-boxes are now, with kegs and bottles under it. And his poor wife was consumpted almost to death. Before I laid my head on the pillow over in the lean-to that night I had bought him out at a fair price, with the horse and rockaway to boot, so he could start right off with her to the West."

"So you hadn't intended to enter commercial life?" asked Mr. Alan, his eyes bright with interest.

"Oh, no," answered Miss Selina Lue, "but I had put my mind so as to follow any good leading that come. If you had seen me go at this grocery with a broom and a mop the next day—and first thing I rolled all the kegs out into the street and emptied' em, and the bottles, too—you would have thought I had come jest fer that special purpose. A young man team-driver started to say something impolite ter me about the river of beer down the street, but Mr. Dobbs stepped over by him and that ended it. And Ethel Maud was borned that very night—and I've had my hands full ever since. But here comes Bennie! How was Miss Cynthia, honey."

"Shoo," answered Bennie. "Didn't nothing sting her; she jest laughed and said, 'Thanky, ma'am, fer the camphire, she'd save it till something did.' Mr. Alan, I told her you give me the dime to hurry back and tell you if she was hurted, but she got red and said you could wait to hear till I could git a hot tea-cake from the cook. But here's the dime 'cause I didn't hurry." Bennie tendered the bit of silver in a dirty, but honest little hand.

"Bennie," said Mr. Alan with a glint in his eyes, "keep the dime; you earned it."

[CONTINUED IN NEXT ISSUE]

Old Glory At The Pole

The celebrated Hammond Atlas has been able to get complete accounts of the exploits of the two now famous explorers—Cook and Peary. This intensely interesting story is in the early 1910 edition of the Hammond Handy Atlas just off the press. (It is exciting and fascinating.) You will be delighted to read about the two adventurers.

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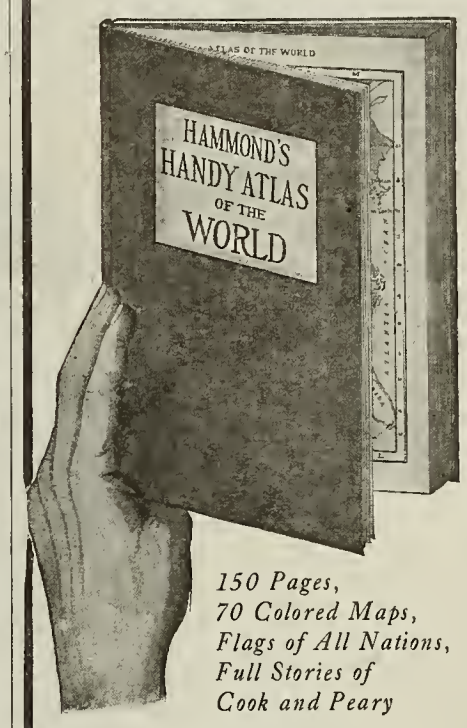

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"'Is this a Polar expedition?' he asked.

"'It is,' I answered.

"'I knew it! I knew it!' he exclaimed. 'Never was there a ship fitted out as this one is which was not intended for the Pole. Expect me to stay all winter?'

"'Not if we can help it,' said I. 'I wouldn't stay here myself. It is not necessary to stay here on account of Dr. Cook. We have a house on board for him.'

"'Glad to hear you say that,' was the Captain's answer. 'I wouldn't stay here for anybody on earth.'"

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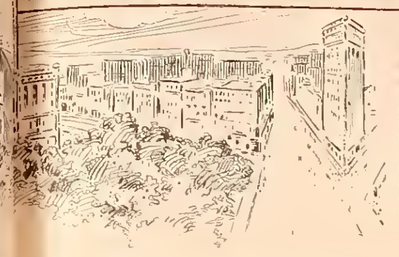
Smartest Madison Square Patterns



Clothes for the Busy Housewife

A REALLY practical work-apron is always welcomed with joy by the woman who does her own work. The work-apron that is illustrated on this page is just about the most convenient apron any woman can own. It is so long that it covers up entirely the dress beneath, perfectly protecting it, and it has roomy, adjustable sleeves. The sleeves are finished with a narrow band which is provided with buttons at the top, while the buttonholes are made in the apron. This apron has a particularly large armhole and a good, roomy pocket.

Of course, every woman needs any number of dressing-sacques, and perhaps our FARM AND FIRESIDE women will be glad to know of a dainty dressing-sacque pattern which can be used in making two entirely different dressing-sacques. One is a loose sacque with a rolling collar and long sleeves and the other is cut square at the neck, is belted in and has sleeves which hang loosely and are elbow length.

The plainer of these dressing-sacques would look neat and dainty made of any figured flannellet, with the rolling collar finished with an embroidered scalloped edge and the cuffs worked in the same fashion. The other dressing-sacque made from this same pattern could be developed in challis or albatross.

No. 1450 — Work-Apron With Adjustable Sleeves

Pattern cut for 32, 36 and 40 inch bust measures — small, medium and large. Quantity of material required for medium size, or 36 inch bust, six yards of twenty-seven-inch material. Use good gingham for this apron

No. 1450

No. 1427

No. 1427—Dressing-Sacque in Two Styles

Pattern cut for 34, 36, 38, 40, 42 and 44 inch bust measures. Quantity of material required for either style of sacque, in medium size, or 38 inch bust, three and one fourth yards of twenty-seven-inch material, or two and one eighth yards of thirty-six-inch material

All of the Madison Square patterns illustrated on these pages may be purchased for ten cents each. Address Pattern Department, Farm and Fireside, 11 East 24th Street, New York City

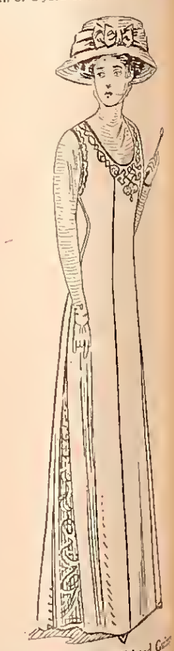
Children's Clothes

THOUGH the new clothes for small reflect, in many instances, the vailing fashion, yet few designs are which are not practical. The Mo effect is introduced in dresses for tots, and older school-girls are these one-piece dresses with the waist effect. Children's clothes never seen in such a great variety year.

A novel and particularly sensible apron is illustrated on this page tern No. 1440. This apron has fronts buttoning over on the side It is cut square at the neck and over the head. It is made with plaits below the waistline in the Fine white percale may be used apron, lawn or any durable wash rial. The apron is sleeveless.

No. 1440—Apron Buttoned at S

Pattern cut for 6, 8 and 10 year sizes. Quantity material required for medium size, or 3 and one half yards of twenty-four-inch material and one fourth yards of thirty-six-inch material one eighth of a yard of insertion for trimming



No. 1281—Short-Waisted Coat

Pattern cut for 32, 34, 36 and 38 inch bust

No. 1279—Directoire Princess

Pattern cut for 32, 34, 36 and 38 inch bust

MADISON SQUARE PATTERNS

For every design illustrated on this page we will furnish a pattern for ten cents. The Madison Square Patterns are very simple to use. Full descriptions and directions come with the pattern, as to the number of yards of material required and how to cut, fit and put the garment together. The pattern envelope shows a picture of the garment. All of the pieces of the pattern are lettered, so that even if the collar in the pattern should look like the cuff, there is no possible way of mistaking one for the other, for each bears its own letter identifying it.

Send orders to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City. When ordering, be sure to comply with the following directions: For ladies' waists, give bust measure in inches; for skirt, give waist measure in inches; for misses and children, give age. Be sure to mention the number of the pattern you desire. Satisfaction guaranteed.

A distinctive feature of the Madison Square Patterns is the originality of their designs. They are always up to the moment in style and yet they are never extreme.

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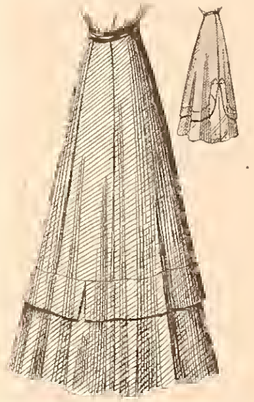
Practical Morning Dress

THE good-looking morning dress which is illustrated on this page in patterns Nos. 1451 and 1452 has many features to recommend it to the busy home woman. Both the shirt-waist and the six-gored skirt hutton in the front. Buttons, preferably pearl ones, are the only trimming of both the waist and skirt, and yet the whole dress has a very smart style.

It is an easy dress to make and also an easy one to launder. Then it is a model which can be made of gingham or of cloth and look well in both materials. Of course, for working about the house, such materials as chambray, percale or gingham are the best to use, but if you wish the dress for general wear, then have it made of Panama cloth with buttons of the cloth.

Though this costume is tailored in effect, being particularly trim, yet it is a model which will prove becoming to not only a slim, but a stout figure.



No. 1386—Three-Piece Skirt With Novel Trimming-Band

Pattern cut for 24, 26, 28 and 30 inch waist measures. Length of skirt all around, 41 inches. Quantity of material required for medium size, or 26 inch waist, five and one fourth yards of thirty-six-inch material, or four yards of fifty-four-inch material

No. 1399—Double-Breasted Long Coat (Misses)

Pattern cut for 12, 14 and 16 year sizes

Cheviot, covert cloth, zibeline or whip-cord are all good, serviceable materials for this long coat. The high collar of velvet is one of its specially practical features

Some Very New Fashions

FUR is being used very extensively as a trimming this year. Long shawl collars of fur are seen on many of the best looking separate coats, and skirts are frequently trimmed with a fur band at the bottom. Fur-trimmed hats are also fashionable. The woman who has a fur coat which has seen its best days can use it to a good purpose in trimming her church costume and in helping to give a new touch to her last year's felt or beaver hat.

New York women are wearing for shopping and general morning wear extremely plain tailored suits. The coats are long, that is, they reach below the knees, and the skirts are either plain with a trimming-band introduced, like the one illustrated in pattern No. 1386, or they show the introduction of plaits. Whether the skirt is gored or plaited the upper portion always fits as if molded to the figure.

No. 1451—Shirt-Waist With Side Closing

Pattern cut for 34, 36 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, four yards of twenty-seven-inch material, or three yards of thirty-six-inch material

No. 1452—Six-Gored Skirt—Buttoned in Front

Cut for 24, 26, 28 and 30 inch waist measures. Length of skirt all around, 41 inches. Material for 26 inch waist, four and three fourths yards of thirty-six-inch material, or seven yards of twenty-seven-inch material

No. 1285—Shirt-Waist With Applied Yoke

Pattern cut for 34, 36, 38 and 40 inch bust measures

No. 1096—Waist With Mousquetaire Sleeves

Pattern cut for 34, 36, 38 and 40 inch bust measures. Material required for 36 inch bust, four and three fourths yards of twenty-two-inch material, or three and one eighth yards of thirty-six-inch material

No. 1291—Shirt-Waist With Shallow Pointed Yoke

Pattern cut for 34, 36, 38 and 40 inch bust measures

No. 1097—Three-Piece Skirt With Fan Back

Pattern cut for 24, 26, 28 and 30 inch waist measures. Quantity of material required for 26 inch waist, seven and one fourth yards of twenty-two-inch material, or five yards of thirty-six-inch material

THE NEW AUTUMN STYLE BOOK

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This style book will make you familiar with all that is newest in the fall and winter fashions. It will tell you all about clothes for the little folks as well as the grown-ups. It costs a few cents more than the one we last issued, but it is well worth it.

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If you are just a little afraid to try making your own clothes, use the Madison Square Patterns and in no time you will have confidence in your own ability. These are the patterns that even the woman who knows but little about sewing can use with success.

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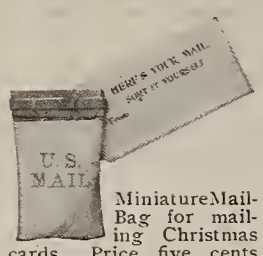
Christmas Gifts in the Shops

Novelties You Can Buy for Less Than a Quarter



Miniature Mail-Bag for mailing Christmas cards. Price five cents

If you have hardly any money to spare for Christmas this year, don't let that worry you. It is really remarkable how many little novelties can be picked up in the big shops of our big cities for prices within the means of really every one's purse. It's the originality, appropriateness and the loving thought that goes with the Christmas gift that really counts more than anything else.

Now here is a whole page of Christmas novelties that are new and most attractive, and the best part of it is that every one of them may be purchased for less than a quarter, and a number of them cost under ten cents.

There are so many to be remembered at Christmas-time, and if we give to one, we feel that we must give to all. This is the case with a great many girls and women, and do you know the sensible thing to do in such circumstances? It is this: Send a pretty Christmas card bearing loving Christmas greetings and good wishes instead of a present that you cannot afford. It will be appreciated just as much by your friends, and is certain to bring happiness to them on Christmas Day.

Small Picture-Frame which resembles in shape an artist's palette. Price twenty-four cents

This unique little mail-bag is intended for just such a purpose as this, and may be sent through the mail as it is with your friend's name and address written upon the tag which accompanies it. Stuffed with cotton and a dainty card slipped inside, no one could possibly guess what the cunning bag contained, and thus an element of mystery is added to the welcome little package. On the tag are the words, "Here's your mail, sort it yourself," so you see the whole family may tuck in a card if they care to, each one bearing a good wish for a happy Christmas. The bag is made of heavy white canvas finished at the top with brown leather, with a strap which fastens like a real United States mail-bag. This original gift may be purchased for five cents.

Nothing could be daintier to give your girl friend than this novel picture-frame. She will more than appreciate it if she happens to have a liking for the brush, for it is the exact shape of an artist's palette. And again, here is a splendid opportunity for you to send her that long-wished-for picture of yourself. A small snapshot will fit in the little frame very nicely, and as it is only an inch and three fourths high, she can easily find room for it on her dressing-table or bureau. This most artistic picture-frame is green in color and on the left side are small spots of red, yellow, purple and white enamel to affect dabs of paint, while coiled around the bottom there is a blue enameled forget-me-not. The price is but twenty-four cents.

Pincushion of red and green felt with top of burnt leather. Price five cents

Are you worrying about what you shall give mother? Have you noticed whether or not she has a pincushion in her work-bag or one hanging near the sewing-machine or one on her bureau? And is there one hanging somewhere in the living-room where pins are within convenient reach when needed by other members of the family? Mother is sure to value this attractive pincushion of green and red felt with its burnt-leather top.

EDITOR'S NOTE—We will be glad to tell you just where you can buy by mail these Christmas novelties. Inclose a stamped and self-addressed envelope in your letter to us, and we will give you the desired information by return mail. Don't send the money to us, but wait till you hear from us. Address Gift Editor, Farm and Fireside, Springfield, Ohio.

Cut Crystal Bead Necklace. These necklaces come in all colors and cost twenty-four cents

It is quite original and in a way is a gift and Christmas card combined, for burnt on the leather top are the words, "As a Christmas greeting to you." It may be bought for five cents.

Combination Match-Scratcher and Match-Safe which costs but ten cents

Then there is the other pincushion, also illustrated on this page. It is just the daintiest cushion ever and is made of Dresden ribbon showing a red flower design, with a fluffy rosette of red baby ribbon on the top. The cushion simulates a tomato. It is just the thing to slip into one's work-bag, for it takes up so little room and yet will hold any number of pins and needles. The girl who is fond of fancy work will be delighted with this tomato pincushion. It costs but fifteen cents.

Compact Needle-Book containing needles in assorted sizes. Folds together like a book, and the needles are always at hand when wanted. It may be purchased for twenty-four cents

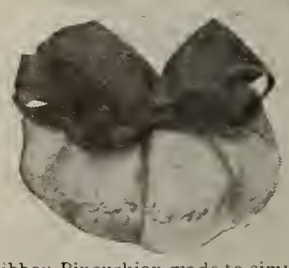
Dainty Box containing one hundred glass-headed pins in assorted colors. Price four cents

If mother and grandmother are always complaining of losing their needles and never having any place to keep them, why not surprise them on Christmas morning with this handy, compact needle-book? It opens out like a book and contains needles in all sizes from the very finest to the very coarsest. But the nicest part of it all is that it may be purchased for twenty-four cents. There is a silk-covered elastic band attached to the outside of the case which fastens over the outside to keep the needles from falling out. Any woman who sews is sure to appreciate this useful needle-book.

What girl wouldn't just love to have a pretty necklace for her very own? Now that necklaces are so very fashionable you need not hesitate in selecting as your friend's Christmas gift a necklace like the one pictured on this page. It is old rose, and worn with a white dress or shirt-waist it gives that much-needed color-note when one's complexion is not particularly rosy. These cut crystal beads may be obtained in any color and cost but twenty-four cents. Their attractiveness may be enhanced by arranging them in a pretty box and tucking in your card containing every good wish for Christmas.

Another gift for a girl is a box of pins like the one here pictured. It contains one hundred glass-headed pins in assorted colors and will be found very convenient to those who wear different colored waists and neckbows. Nothing looks worse than a collar pinned with an ordinary steel pin. The smart thing today is to have everything match. Hats must match the suit, also waists, and neckbows, and, if one is particular about these little details of dress, pins having the same colored heads as the neckbow or waist will be used. The box and pins may be purchased for four cents and it would seem as though the box itself were worth that amount, so cunning is the little Stewart baby and so delicate are the colors. When the pins are gone, use the box for tiny candies.

Something novel in the way of a Christmas gift is the combination match-scratcher and match-safe here illustrated. Only the back of the mother cat is sand-papered, because you see what the baby cat says. "Don't scratch me, scratch mother." The gift is unusual and funny enough to make any one laugh. It costs ten cents.



Dresden Ribbon Pincushion made to simulate a little tomato. May be purchased for fifteen cents

In sending your presents, don't neglect to wrap them daintily. This is half the joy of giving a present and of receiving it. An inexpensive gift will look twice as dainty and attractive if arranged in a pretty box and wrapped in white tissue paper tied with red ribbons.

After a glance at the original and most inexpensive little gifts illustrated on this page, no woman need feel that for lack of money she cannot send any Christmas gifts this year. One of the privileges of being one of the big Farm and Fireside family, especially at this season of the year, is to hear about the Christmas presents which the shops are showing and to be put in touch with these shops so that you as well as the folks in the big cities may have the same shopping advantages.

The Household

How to Use Round-Steak

When round steak must be used instead of the more tender and palatable sirloin or porterhouse try either of the following recipes:

Savory Steak—Have the steak cut rather thick, spread it out and pound it well. Cover it with very thin slices of bacon, roll it up tightly and bind it securely with some white cord. Put it in a stew-pan with just enough water to cover it, and let it come slowly to boiling point. Skim it well, add a small bunch of sweet herbs, two carrots cut in slices, two medium-sized onions cut small, a bit of bay-leaf and half a dozen peppercorns. Cover the pan and let the meat cook slowly until it is very tender. Take it out of the pan, spread soft butter all over it and place it in a hot oven for ten minutes. Strain enough of the stock to make the required quantity of gravy, thicken it with a little flour, add some seasoning if needed and pour it around the steak on a heated platter. Place the vegetables neatly around the meat and serve with tomato or mushroom catchup.

Beefsteak-Pudding—For each pound of steak allow one pound of flour, six ounces of suet and a little salt and pepper. Make a very firm paste with the flour, suet, a pinch of salt and a little water. Roll it out and line a pudding-dish with it. Season the meat with salt and pepper, cut it in small pieces, dip each piece in flour and put it into the pudding-dish. Add a little well-seasoned gravy or some water if gravy is not at hand, cover the top with a layer of the paste and press the edges well together. Tie it securely in a strong, well-floured pudding-cloth and let it boil for about three and a half hours. Send it to the table in the pudding-dish in which it was cooked, pinning it neatly in a clean napkin if the outside dish is not at hand.

Beefsteak-Cakes—Put one pound of steak twice through the mincing-machine, add to it one cupful of bread-crumbs, a little salt and pepper, a few drops of onion-juice, a tablespoonful of melted butter and half a cupful of tomato-catchup. Mix very thoroughly and form into small, flat cakes. Egg and bread-crumb them and fry brown on both sides. Serve on a hot dish with a border of mashed potatoes around them, and tomato-sauce in a gravy tureen.

Some Useful Don'ts

Don't believe people who say basting is not necessary.

Don't wash frying-pan before wiping with paper while hot.

Don't boil meat—steam it, except salt beef; after which don't throw away the water—use as stock for soup.

Don't put meat in oven without rubbing with salt and often covering bottom of pan with water.

Don't boil potatoes—steam them; then when nearly done take off the lid of steamer, add salt, then cover with cloth.

Don't stick a fork in a joint to turn it, as it will let out its juices. Use cloth if possible, as with a shoulder or leg of mutton.

Kitchen Helps

Old-fashioned cooks are prone to believe that no hot biscuits or short-cakes are quite as toothsome as those made with sour milk or buttermilk, and a good many cooks of a younger generation believe likewise. Even in the city careful housekeepers utilize every bit of sour milk in some way. If there is just a little bit, it is used to brighten tinware and silverware, and for this purpose it is really excellent. When used as a polisher, however, it is always better to heat it.

If an entire quart, or more, sours before it can be used, the woman who has been so fortunate as to have had a taste of country life, rejoices in a saucerful of delicious cottage cheese of her own making. By the way, urbanites are amusingly ignorant of the making of this delicate tidbit, and the uninitiated regard its manufacture as something quite mysterious and difficult.

Others there are who make a practice of drinking a quart of newly-soured milk every day of their lives, physicians now claiming that it is not alone remedial, but that if used constantly it will prolong life.

Instead of using oxalic acid to clean brass and copper utensils try half a lemon dipped in salt. This will cleanse and brighten wonderfully, but should be polished until thoroughly dry before putting the article away.

Tested Fruit-Cake Recipes

To many young and inexperienced housewives the making of fruit-cake is a bugaboo. Below are a few simple, tested recipes which will be worth your while to try. The fruits and cake never fail and I am sure that after a trial you will keep the recipes in a special place in your cook-book. I prepare the raisins, currants, citron, etc., the evening before baking. I use equal parts of each ingredient, with the exception of milk, baking-powder and citron, and mix them into a large mixing-pan, ready for a quick entrance into the oven immediately after breakfast. Use large half-pint coffee-cups for measuring. Paper and grease your largest baking-pan. Your batter for the fruit-cake must be very stiff, spread it in three layers, with citron alternating. Bake in a slow oven three and one half or four hours. Always ice fruit-cakes twice, as the fruit stains through the first coating. Test by inserting a clean, smooth broom-straw. If it comes out clear, the cake is done. Now for the recipes:

Black Fruit-Cake—Four eggs, one cupful each of butter, milk and molasses, two cupfuls of sugar, four cupfuls of flour, three teaspoonfuls of baking-powder, three cupfuls each of seeded raisins and currants, one and one half cupfuls of citron sliced thin, one tablespoonful each of allspice, cinnamon and cloves, and one nutmeg. I sometimes add a cupful of crushed walnut-meats and one half cupful of sweet pear pickle.

Sailor's Cake—Two cupfuls of brown sugar, two cupfuls of flour, one cupful of sour milk, one half cupful of butter, one half cupful of chocolate or cocoa, three eggs, one teaspoonful of soda. Bake in four layers.

Icing and Filling—Two cupfuls of white sugar, three fourths of a cupful of milk, butter the size of an egg. Boil, and when cool flavor with vanilla.

Home Uses for Salt

Salt sprinkled on pantry shelves will prevent ants.

Salt will remove ink from carpet if used immediately.

Put salt in the water when you wish to cool a dish quickly.

Place salt in oven under baking-tins in order to prevent contents from scorching.

To beat eggs quickly, add a pinch of salt. This also applies when whipping cream.

As a cleanser, salt is also of use. Sprinkled dry over a dull carpet it will freshen the colors. China and glass rinsed in salt water will brighten if washed only in a clear bath, while mirrors and window glass if polished with damp salt on tissue paper will shine, as they do from no other treatment.

Delicious Small Cakes

Jumbles—Two cupfuls of sugar and one half cupful of butter creamed together, three eggs, one and one half cupfuls of flour. This makes a stiff batter. Drop with teaspoon on greased pan, far apart, giving room to spread. Flavor with lemon.

Sugar-Cakes—Two eggs, two cupfuls of sugar, one cupful of butter, one cupful of thick sour cream (put one teaspoonful of soda in cream and beat until light), flour sufficient for the dough to be rolled out, sprinkle with sugar, cut and bake in hot oven.

Ginger-Snaps—One cupful of brown sugar, one cupful of molasses, one cupful of lard, one teaspoonful of soda in one fourth of a cupful of hot water. Mix very thick with flour and roll thin.

Cry-Babies—One cupful of butter, one cupful of sugar, one cupful of dark molasses, one egg, two teaspoonfuls of ginger, one teaspoonful of cinnamon, two teaspoonfuls of soda in one cupful of boiling water and five cupfuls of flour. Add boiling water after flour, egg last, drop by the teaspoonful in greased pan.

Raised Doughnuts—Boil one pint of new milk, melt in it one fourth of a pound of butter, beat two small eggs with three fourths of a pound of sugar until very light, pour over the eggs, sugar and boiling milk, stirring rapidly for a minute or two. Let stand until nearly cold. Then add one cupful of yeast and flour enough to make a stiff batter, put in a warm place until light. Add one half pound of sugar, one nutmeg and flour to make a moderately soft dough. When light again, roll thin, cut out and fry in hot lard.

The highest medical authority on foods,

Sir James Crichton Browne, LL.D.—F.R.S.

of London,

gives the best reasons for eating more

Quaker Oats

In an article published in the Youth's Companion of September 23rd, 1909, Dr. Browne, the great medical authority on foods, says, about brain and muscle building—

"There is one kind of food that seems to me of marked value as a food to the brain and to the whole body throughout childhood and adolescence (youth), and that is oatmeal.

"Oats are the most nutritious of all the cereals, being richer in fats, organic phosphorus and lecithins."

He says oatmeal is gaining ground with the well-to-do of Great Britain. He speaks of it as the mainstay of the Scottish laborer's diet and says it produces a big-boned, well-developed, mentally energetic race.

His experiments prove that good oatmeal such as Quaker Oats not only furnishes the best food for the human being, but eating it strengthens and enlarges the thyroid gland—this gland is intimately connected with the nourishing processes of the body.

In conclusion he says—

"It seems probable therefore that the bulk and brawniness of the Northerners (meaning the Scotch) has been in some measure due to the stimulation of the thyroid gland by oatmeal porridge in childhood."

The Scotch eat Quaker Oats because it is the best of all oatmeals.

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The 1910 Baby Calendar is included with these offers if requested.

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Christmas Presents for Children

No. 1244—Jointed Elephant

Cut in one size for elephant 9 inches high. Material required, one half yard of thirty-six-inch material, a small piece of chamois for the tusks, and buttons for eyes. Either gray flannel or gray cotton plush are the best materials to use for this elephant. He is sure to be appreciated by any child, and the fact that he is jointed makes it possible to play he is a trick elephant, for it is easy to put him in many funny and interesting positions.

If Santa Claus feels the need of economizing, he can find many Christmas presents on this page to put into his big sack which will cost the jolly old man but very little money. But of course he will need the coöperation of mother, for she will have to do really all of the sewing. With mother's help he can give any good girl a rag doll and three different suits—a dress, the cutest bath-robe and rompers for play wear—and all it will cost for the patterns is twenty cents. Then, if he wants to spend ten cents rather than twenty, he can buy the smart-looking clothes for the boy doll. These consist of a good-looking Russian suit made in the most approved style and pajamas to wear when he is ready for bed.

With these clothes, however, we do not furnish a pattern for the boy doll, but they will fit any boy doll who measures twenty-two inches high.

No. 1438—African Lion

Pattern cut in one size for lion 9 inches high. Quantity of material required, three fourths of a yard of twenty-two-inch material, with one fourth of a yard of light tan-color cotton plush and two buttons for eyes. Horse-hair is the best material to use for the lion's bristling whiskers. This Christmas, particularly, the jungle animals are specially in favor, such as the lion, the elephant, the monkey an the giraffe, and small boys are all anxious to collect enough animals to have a menagerie.

No. 1435—Rag Doll and Rompers

Pattern cut in one size for doll 22 inches high. Quantity of material required for rag doll, three fourths of a yard of thirty-six-inch material. Quantity of material required for rompers, three fourths of a yard of thirty-six-inch material, with one eighth of a yard of contrasting material for collar and cuffs. We furnish a pattern for making the rag doll illustrated in design No. 1435. After this doll is made, then her face must be either painted or her features worked in with embroidery stitches. Have her hair of worsted and use black shoe-buttons for her eyes or blue or brown heads. If mother happens to have any left-over scraps, say of blue and white check gingham or dark blue chambray, these are just the materials to use for the doll's rompers. The pattern is an easy one to make.

No. 1435—Rag Doll and Rompers

In every small girl's heart, there is always room for a rag doll. And every mother is sure to be glad of this fact, because many times she does not have as much money as she would like to spend for Christmas toys for her children and she knows that with the aid of a carefully-drafted pattern she can make a rag doll which will be sure to bring joy to the hearts of the littlest folks in the family on Christmas morning. There is something about a rag doll that is always most comforting to the little girl-mother's heart. The rag doll never being much dressed up can be loved so much harder, and played with so much harder, too. On this page in pattern No. 1435 is illustrated a fine-looking rag doll, and for ten cents the pattern for this doll and another pattern for the doll's rompers can be obtained.

No. 1437—Doll's One-Piece Dress and Bath-Robe

Pattern cut in one size for doll 22 inches high. Quantity of material required for dress, one yard of material thirty-six inches wide. Quantity of material for bath-robe, one yard of material thirty-six inches wide. Any bit of left-over material, such as lawn, linen or chambray, would do well for dolly's one-piece dress. If you are planning to give your small daughter a rag doll for Christmas, like the one illustrated on this page, or if she happens to have a doll this size, she will surely be delighted with the doll's clothes illustrated in pattern No. 1437. Perhaps your little daughter does not want a new rag doll. Perhaps she likes the one that has been her very own for a long while, even if, in the eyes of the world, her first fresh charm is gone. But you can be sure of one thing, no rag doll can ever have too many clothes, and her appearance, even if it is somewhat the worse for wear, can be greatly improved by a new dress, especially a fashionable one-piece dress like the design illustrated in pattern No. 1437.

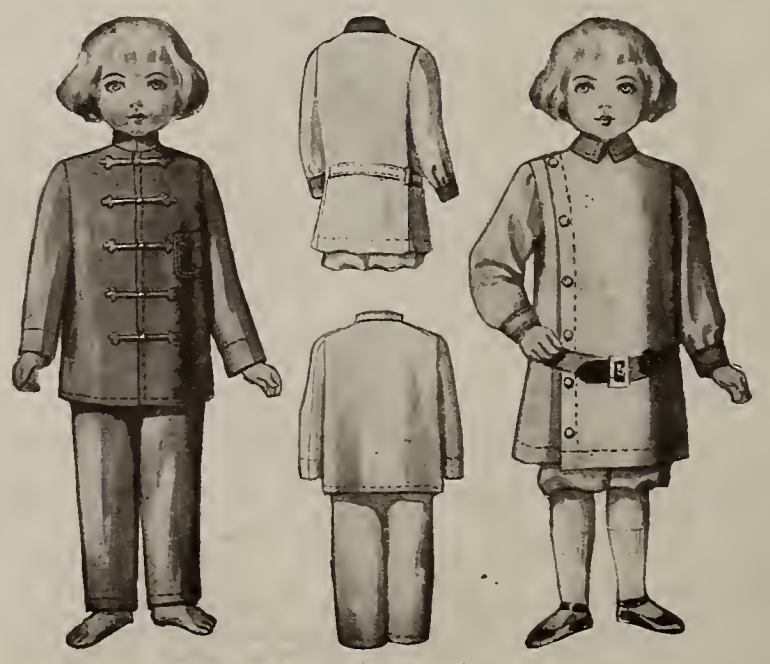
No. 1437—Doll's One-Piece Dress and Bath-Robe

No. 1436—Pajamas and Russian Suit for Boy Doll

Pattern cut in one size for doll 22 inches high. Quantity of material required for pajamas, three fourths of a yard of material twenty-seven inches wide. Material required for Russian suit, three fourths of a yard of material twenty-seven inches wide, with one eighth of a yard of contrasting material for collar and cuffs. Perhaps your little daughter may have a special fondness for boy dolls. If she has, she will surely like some new clothes to add to his winter wardrobe. In pattern No. 1436, illustrated on this page, there are two designs for a boy doll. Other designs for the boy doll may be found in the catalogue of Madison Square patterns, the price of which is ten cents. In this catalogue there is a pattern for a sailor suit for a boy doll and also jumpers. Both patterns may be purchased for one ten-cent piece. These two patterns with the patterns for the pajamas and smart-looking Russian suit make a very complete wardrobe for a boy doll. A scrap of white piqué could be used for the Russian suit.

On this page are illustrations for five different Christmas presents for the little folks, any one of which is sure to prove a welcome gift.

There is the pattern for the jointed elephant and another pattern for the big, ferocious-looking African lion. Then perhaps the very best present of all is the patterns for the rag doll and her rompers and the cost is only ten cents for both of these patterns. Patterns for a bath-robe and a one-piece dress for dolly can also be obtained for ten cents, and then there are the patterns for clothes for a boy doll which sell at the same price.



No. 1436—Pajamas and Russian Suit for Boy Doll

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Any of the patterns illustrated on this page may be purchased for ten cents. In pattern No. 1435 the pattern is given for the rag doll and her rompers. In the other patterns, Nos. 1436 and 1437, the patterns are simply for the doll's clothes. If you have not seen our new pattern catalogue, it will be very useful to you at this particular season of the year. It has many suggestions for Christmas gifts, such as aprons and more doll patterns, as well as clothes. The price is ten cents. Order catalogue and patterns from the Pattern Department, Farm and Fireside, 11 East 24th Street, New York City.

YOUNG FOLKS' DEPARTMENT

Conducted by Cousin Sally

The Surefootedness of James

By Ruth Comfort Mitchell

Aunt Ellen had ever a horror of skates. As far back as Jimmie could remember, and that was a long way, for he was twelve and had lived with her since his mother and father died, leaving him, a little tot of three, to Aunt Ellen, she had always declared skates "vicious things," and skaters the most reckless of all imprudent beings who flew in the face of Providence.

Possibly, Jimmie reasoned, this was because she had never been a boy, to know the unspeakable joy of skimming over the ice as lightly as a bird, with the sharp wind blowing in one's face and an envious crowd of boys forced to drop behind and leave one in the lead, for Jimmie was the swiftest and most surefooted of all the skaters in town and was at once the envy and the inspiration of all the village boys, who risked life and limb to outdo him.

Then, too, there was a grewsome tale that Aunt Ellen was fond of telling, concerning a second cousin of hers who had fallen and hurt his back while skating on the ice and had never walked again. One Christmas something happened which astonished not only Jimmie, but all the townsfolk who knew her prejudices so well. She gave Jimmie a pair of skates. The lad had given up teasing for them long since, but the look which accompanied his listless "I dunno," when asked what he wished for Christmas, spoke more eloquently of his heart's desire than any amount of coaxing. She reasoned to herself that James having done exceptionally well at school that term really deserved a special reward, and she knew earth held no joy for him like unto the possession of a pair of skates.

Of course it was risky, dreadfully risky, and she shouldn't take a minute's comfort while he was on the ice, but boys would be boys, and then all the Stillwells were always surefooted; she had never heard of one slipping or tripping or spraining an ankle. To the boy she said:

"Now, James Madison Stillwell, I'm glad you're pleased with 'em and I hope you'll have a right smart lot of fun with 'em, but let me tell you one thing: The very first time you fall and skin your nose or sprain your ankle or hurt your back I'll take 'em away and lock 'em up where you won't never set eye on 'em again."

Jimmie thought the last admonition rather superfluous, as he couldn't imagine having any particular use for skates if he met with Cousin Henry's fate, but, nevertheless, it served to make him exceedingly cautious. Holiday week was a gala one for Jimmie in the delirious joy of his new possession and seven days of the finest vacation weather that a kind-hearted weather clerk could provide, and when New Year's Day dawned, bright, cold and cloudless, his cup of happiness was full, for a series of races had been planned for the afternoon, and all the town would be out for the sport.

In the afternoon the lake was covered with skaters and the banks with spectators, while the air vibrated with the shouts of the merrymakers. Aunt Ellen went out to make a call, but found herself, much ashamed of her frivolity, wending her way toward the ice. When she discovered Mr. Dinwiddie, the pastor, there with his little daughter, her self-respect rose several degrees.

"You've cause to be proud of your laddie, Miss Ellen," cordially cried Mr. Dinwiddie, grasping the skirt of his four-year-old Margie to keep her from running upon the ice.

"Jimmie, Jimmie, me wants Jimmie!" screamed the little one, jumping up and down in her excitement, and holding out her arms when he waved his hand to her as he skimmed past.

"He's made great friends with the lassie," laughed the parson, "and I have all I can do to keep her off the lake."

Aunt Ellen lingered till the bell in the town hall struck three, reminding her of the neglected call, and guiltily she hurried away.

Then the race all around the lake was called and a dozen or more boys entered, and Mr. Dinwiddie was chosen for referee. A few preliminaries and they were off, slowly at first, gaining in speed as they rounded the first curve.

Jimmie was skating easily, letting several pass him, and saving himself for a final spurt at the end. Those on the shore shouted encouragement to the racers, "Go it, Billy," "That's the way, Jack," "Hit her up, Jim," "Aw, Mickey, get in the game!"

On they came fighting for first place, till suddenly the spectators saw Jimmie spring forward like an arrow from the bow as they rounded the last curve into the home stretch. His head was thrown back, his elbows pressed tightly to his sides, his fists clenched; his breath came in gasps and his eyes shone. One more moment and the race was his.

Suddenly, so quickly that no one knew just how it happened, little Margie eluded the vigilance of her father, who was too intent on the finish to heed her, and with a glad cry of "Jimmie," was out on the ice.

A cry of horror broke from the watchers. At that terrific speed it would be impossible for him to swerve aside, and the little one stood quite still in his course, delightedly clapping her hands, her yellow curls flying in the wind. Those who were nearest saw the color leave the boy's face and his eyes widen. An instant and he was almost upon her; women screamed, and Mr. Dinwiddie, dashing to the rescue, groaned aloud, but quick as a flash Jimmie threw himself to one side, fell with a crash on the glistening ice and lay quite still, unconscious of the cheers which woke the echoes of the hills.

Two hours later a very weak and dizzy Jimmie lay in a darkened room. Aunt Ellen, with tightly-compressed lips, moved quietly about setting things to rights.

"Did—did you hear how it happened?" weakly ventured Jimmie.

"I don't wish to hear," answered Aunt Ellen, woodenly, going to the window as a step grated on the gravel walk. "There's Mr. Dinwiddie; come to inquire, I s'pose. I'll be back in a moment."

Jimmie turned his face to the wall and fought for his composure. If, at that bitter moment, some tears escaped him, they were not because of his swollen eye or his skinned knee or his sprained ankle, though all throbbed painfully. Those ominous words were ringing in his ears, "and you'll never set eyes on 'em again."

So wrapped in his woe was he that he hardly noticed when Aunt Ellen reëntered the room. She started toward the bed, changed her mind, poked the fire so energetically as to put it out, and then, to show how calm and collected she was, sat down at the window and began to read the newspaper upside down; but catching Jimmie's wondering eye she rose and marched out of the room.

She returned in a moment with something in her hands.

"James," she said huskily, with a little quaver in her voice, "here's your skates. I'm goin' to hang 'em up where you can see 'em while you're sick. One of 'em's broke, I guess, but soon's you're well enough I'm a-going to get you another pair," and leaning down she kissed him on his bandaged eye.

Cousin Sally's Letter

Dear Girls and Boys:—

I want to feel that every one of my many little friends is going to be happy to-day, for Thanksgiving is a day of rejoicing, a day set aside to give thanks for our many blessings. We all have blessings. The next time you think you haven't, just stop and count them and you will be surprised to find that they outnumber your trials and petty grievances. We all have trying days; no one is exempt from them. There are days when everything goes wrong; you forget to bring in the wood, and mother scolds; you stay out playing longer than mother gave you permission, another scolding; you have to stay home and mind little brother while mother is out, perhaps visiting a sick friend, and your heart rebels as you watch your girl friends trotting off to the woods to go chestnutting. Everything goes upside down and you feel so cross that you can't resist giving little sister a snappy answer to her baby question, and brother Tom goes off by himself lonely and dejected because you refused to play his favorite game. To make matters worse, mother jokingly says, "I guess my little girlie got out of bed the wrong way." This seems too much for your little heart to bear, and you find relief in a good cry all by yourself. Oh, I can remember just such days, too, days when I thought every one was against me. But it wasn't so at all. Just because I was cross I thought every one else must be, too. When the clouds passed by and the sun came out, how beautiful everything seemed again and how good it was to be living in this big beautiful world!

So to-day, and every day, we want to give thanks for all that is ours. How rich we all are in the gifts of Nature. Let me see. There is the sunshine, the blue sky, the grass, the trees, the flowers and the little birds that come to our windows in the morning to awaken us with their glad, sweet song. There are the beautiful wide-stretching fields and meadows, which very soon now will lay before us clothed in their winter garment of white. Could anything be more beautiful than the ground and trees mantled in snow? Surely, these are gifts which every one should be thankful for. God has given them, not to one of us but to all of us, and He wants us to appreciate them, I know.

If to-day you are not thankful and happy because one long-hoped-for wish has not been granted, cheer up, dear cousins. Happiness isn't always gained by receiving and having every wish gratified. Don't you think you would feel just as happy if you did something to make others happy, to bring a little sunshine and gladness into some one's life that is not so bright and smooth as yours? This doesn't mean that you can't do good unless you go outside of your own home. No, indeed. You can help mother when she is tired. Mother does a lot for you, so many, many little things that you would never dream of, and she is more than repaid when you are obedient and loving and helpful. And then there are brother and sister. If sister wants to play one game and you another, don't quarrel and go off by yourself and sulk. Play her favorite game and then ask her to play yours.

I am glad there is a day for giving thanks, but I do not think we ought to be thankful just one day out of the year; we should give thanks every day for our blessings.

With a great deal of love and every good wish for a happy Thanksgiving.

Cousin Sally.

Club News

Here is a letter from Thelma Payne, the first one to join Cousin Sally's Club. I hope all of my boys and girls will be as enthusiastic about the club as Thelma.

Dearest Cousin Sally:—

I received your letter in the Farm and Fireside this morning and although I only had a few minutes I decided to write, anyway. When I get outside I'm going to shout "Hurrah!" for I'm so glad about our club. I've wanted something like this for a long time. I will inclose five cents in stamps, and I hope you will write to me "right away." Don't forget to send me the button, and I'm going to get some of my friends to join. I really must close and go to school. With much love I am your enthusiastic cousin,

Thelma Payne,
55 Rhode Island Avenue, N. W.,
Washington, D. C.

Those wishing to become members of Cousin Sally's Club may obtain a button of membership by sending five cents in stamps to cover cost and addressing Cousin Sally's Club, Farm and Fireside, 11 East 24th Street, New York City.

I want to ask you all to state your age when writing. So many boys and girls have neglected to do this, and no one can become a member who is over seventeen years of age. I wish those of you who forgot to give your age would sit down and send it to me to-day. Later I am going to give you suggestions for organizing a branch club of your own. Cousin Sally.

Prize-Winners in October 10th Contest

The cameras were awarded to Beryl Peacock, age eight, Odessa, Michigan, and Blair Rudd, age thirteen, Rolfe, Iowa; the watch to Arthur Kiefer, age twelve, Loramie, Ohio, and the sewing-box to Susie Thompson, age fifteen, Quitman, Missouri. Besides these, supplementary prizes were awarded to the following boys and girls: Helen M. Davison, age fourteen; Mina Melvin, age eight; Gladys Burry, age nine; Johanna A. Raube, age fifteen; Harter F. Wright, age fourteen; Marjorie Heberling, age twelve; Dorla M. Albright, age thirteen; Lillian Tucker, age fifteen; Emily S. Pond, age ten; George Habla, age fifteen.

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Storekeepers who are interested in MAKING BIG MONEY by getting their customers to read Farm papers should write us to-day. Profitable and helps the rest of your business.
The Crowell Publishing Company
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How We Try to Please Our Big Family

Much interest has been manifested from time to time by Farm and Fireside readers in our subscription methods. And in order to satisfy this interest we have attempted in this article to set forth interestingly, without dipping too deeply into technicalities, a brief outline of the workings of our subscription department and to present to our readers some idea of the magnitude of our operations.

For a long time we have cherished a desire to get into closer touch with our subscribers and to bring about between them and us a better understanding. We sincerely hope that this article may point the way to such an understanding and that our methods and aims will be better understood when we have finished.

The story begins with the receipt of a subscription from—well, for convenience, let's call him Mr. Subscriber, of Anywhere, U. S. A. Mr. Subscriber's order was received at our office on the early morning mail one recent day. On the afternoon of the same day, the first copy of Farm and Fireside was mailed to Mr. Subscriber, the detail work on his subscription was completed and his letter filed for future reference. In the meantime Mr. Subscriber's order had passed through the hands of sixteen different clerks, each of whom performed some one operation directed toward speedy and accurate handling of the subscription.

Although containing but one subscription, Mr. Subscriber's order was treated with the same consideration as an order for hundreds of subscriptions, and this one subscription swelled, to that extent, the big Farm and Fireside family record. The same record is made in every case, whether the order contains one or fifty subscriptions. This means that a subscriber's own subscription or a club-raiser's club of ten receives exactly the same attention as any of the larger orders.

One Subscription is Given Just as Careful Attention as a Thousand

The correct and accurate handling of one subscription is as important to us as that of a thousand, for that one subscription has an individuality that the larger order has not. We mean by this that single subscriptions that come to us direct from the subscriber show individual preferences that are not apparent in the larger orders. And it is by consulting these individual preferences that we are enabled to formulate our editorial policy.

To register these preferences many records must be kept, and of all the records taken in the subscription process, each and every one is made for the protection of Mr. Subscriber. At first glance it would appear that these many records could be of value only to ourselves. But this is not so. Suppose, for instance, that some particularly distinctive issue of Farm and Fireside brings forth an unusually large number of subscriptions. This shows that the issue has been of unusual interest to our readers, and that fact is recorded. In future issues of Farm and Fireside, if you are observant, you will find this information practically applied.

Suppose again that some one of our efforts meets with a cool reception. That fact also will be recorded, and that effort will never again be seen in the pages of Farm and Fireside. These records then are the pulse of our subscribers' preferences, and it is only by careful study of such preferences that we are enabled to adapt our service to our patrons' wants. True, we derive a benefit from the application of such a policy, but it is equally true that the greatest benefits of this policy accrue to our subscribers. For it is obvious that unless Farm and Fireside continues to please Mr. Subscriber, that gentleman will soon cease to read our publication, and considering Mr. Subscriber as representative of our patrons, it is very evident that we should soon cease to exist for want of subscribers.

We have mentioned the sixteen clerks who actually handled Mr. Subscriber's order, but as yet we have said nothing of the several hundred other clerks, all of whom have some duty to perform which bears more or less upon our service to Mr. Subscriber. Of these, one clerk verifies all post-office addresses from the United States Official Postal Guide, which in itself is not a simple task. For, strangely, some of our subscribers give us in their orders the names of defunct and obsolete post-offices, as well as express-offices and railroad-stations where no post-offices exist. The correct post-office address must be determined before such subscriptions can be properly entered upon our mailing list. After this, all premiums are taken off and shipping labels prepared. At this point a club-raiser's record is made.

Another clerk makes the stencil, a mechanical device from which Mr. Subscriber's paper is addressed each issue. Another compares the new stencil with the original order to make sure that the stencil address is correct. Still another scans the order in search of requests for information or complaints and sees that such matters receive proper attention. And in this manner throughout the entire system, comparison after comparison is made and record after record is taken, all in the interest of good service to Mr. Subscriber.

To treat each and every order in this careful manner would seem to make for delay. And so it would, but for the fact that our subscription force is large, so large as to occupy the entire top floor of our plant.

Part of our busy Subscription Department showing the girls at work. The picture at the top shows the long procession of dray-loads necessary to carry Farm and Fireside to the trains

Then again, the actual time consumed in each of the many processes is much less than the time required to tell about them. Our system is so well adjusted that the subscription orders pass through the subscription process in an endless procession, each one close upon the other and in such volume that in our busy season we enter and record for days an average of seventy-five hundred subscriptions a day.

We Often Handle Seventy-Five Hundred Subscriptions a Day

Think of that! Nearly seventy-five hundred subscriptions a day! And yet very seldom is it necessary for a subscriber to complain of errors or delays. We are only human and we do make mistakes, but very often investigation of a complaint reveals the fact that the error was not ours but Mr. Subscriber's.

And then what do we do? Do we rise up in our righteous wrath and denounce him? Not at all. Instead we write him very humbly and beg his pardon for our neglect in not discovering his mistake! For, you see, we hold ourselves responsible, not only for our own errors, but for some of the errors of our subscribers as well. We consider that we are at fault in not discovering any mistake a subscriber may make if such a mistake is possible of detection. That's part of our business—to keep our friends from stumbling.

Down in the basement of our building are seventeen modern printing-presses running night and day. From these presses pour an endless stream of papers, a veritable river of paper and ink. A single edition of Farm and Fireside printed on these presses, if the papers were placed end to end, would extend a distance of over one hundred miles, or if piled one upon the other would form an obelisk over a third of a mile in height. A year's edition placed end to end would extend from the Atlantic seaboard to the Missouri River, and piled one upon the other would rival the tallest mountain-peak upon this continent.

Considering the reading matter, if the pages of a single edition of Farm and Fireside were placed end to end, they would cover a distance of over twenty-eight hundred miles, or figuring four columns to a page, each edition contains over eleven thousand miles of printed matter. In other words, the printed matter contained in a month's printing of Farm and Fireside, if arranged end to end, column by column, would extend nearly around the world!

To move a month's printing of Farm and Fireside at one time would require one hundred and five two-horse trucks. The magnitude of our mailing operations is so great that the government is obliged to maintain a branch post-office in our establishment, manned by government mail-clerks, in addition to our own mailing force of about fifty clerks.

In a business of this scope mistakes sometimes occur. As we have said, our employees are all very human, and in human beings we have learned that it is not wise to expect perfection. But taking into consideration the magnitude of our operations, we do claim that the percentage of errors made by us is very small. In fact, our complaint records show that ninety per cent of the complaints that come to us are due entirely to misunderstandings and mistakes outside of this office.

Patience on Your Part Will Help to Facilitate Matters

In presenting the foregoing facts and figures we hope, therefore, to give our readers a better understanding of the conditions that surround our business operations. These figures mean much or little, according to the comprehension of the reader. To those who see nothing but a mass of entertaining statistics they mean but little, but to those who read intelligently and comprehensively they mean much.

To us they mean very much. They represent years and years of study and application, thousands of dollars in expenditure, and, most of all, the realization of an ambition, the ambition to publish and distribute the best farm paper in the country. They mean, further, an honest effort to give to our patrons the very best service possible, and an endeavor on our part to make that service even better. Will you help us to do this?

You can do so by just remembering these facts. During the busy season we enter two hundred thousand subscriptions a month, and each and every one of those two hundred thousand subscribers is just as anxious as you are for a quick return. With each and every issue we mail nearly half a million copies of Farm and Fireside. It would not be strange, therefore, if in the handling of this vast quantity of mail a paper now and then should get lost.

We expect to adjust equitably any error that occurs, whether the fault is ours or not, so you may feel assured that your complaint will receive our best attention and effort if you will write us promptly.

Just be reasonable in your attitude and demands; give us the benefit of the doubt until you prove us in error and be assured of our firm determination to give you the best that is in us.

The end toward which we are constantly working is better service to our subscribers. To this end we devote yearly the expenditure of thousands of dollars and the effort of hundreds of clerks. We are never satisfied. The best that we can do in our opinion is not good enough. Upon this principle is based the progress, past, present and future, of Farm and Fireside.

This fine building at Springfield, Ohio, is the home of Farm and Fireside

This Beautiful Calendar

For Every Farm and Fireside Subscriber

THE 1910 Baby Calendar is the most beautiful and fashionable calendar of the year, and is printed in many colors on heavy plate paper, eleven by seventeen inches in size. It has a special patented hanger and will come to you all ready for hanging up in your living-room, where every member of the family, from mother and father down to the baby, will enjoy it every day of the year. No advertising of any sort or description is printed on it.

You will love the baby picture that adorns this handsome calendar. It is the most remarkable and the most attractive baby picture ever painted. Every time you look at this sleepy baby you will want to yawn, too. You can have no idea how beautiful and charming this baby is till you have the big colored picture hanging up in your house.

THE 1910 Baby Calendar is the handsomest and finest calendar ever offered to its readers by a farm paper, and you will receive it, absolutely without cost, if you send your subscription to FARM AND FIRESIDE before December 25th. Not only will you receive the Baby Calendar without cost, if you send your subscription before December 25th, but you will be entitled to the old, low subscription price to FARM AND FIRESIDE.

We want every FARM AND FIRESIDE family to have the 1910 Baby Calendar. If your present subscription has not yet expired, we want you to renew now in advance, so as to receive the calendar and to take advantage of these low prices. The calendar will be sent to you, without cost, carefully packed in a tube, postage prepaid.

Until December 25th Only

FARM AND FIRESIDE has been greatly enlarged and improved, and the subscription price raised to 50 cents a year. If you send your subscription now, before December 25th, you can obtain the greatest of all farm papers at just half price.

Do not miss this opportunity to obtain the new and greater FARM AND FIRESIDE at half the new price, and to receive the beautiful 1910 Baby Calendar without extra cost. This is your last chance. Send your subscription to-day.

The New and Greater
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The new and greater FARM AND FIRESIDE will be the biggest and best farm paper published. The last issue and this issue are only the beginning. The next number—the Christmas FARM AND FIRESIDE—will be better still, each issue better than the one before it, until we have made the best paper possible.

A Handsome Cover

FARM AND FIRESIDE'S covers will be the prettiest and most expensive covers on any farm paper.

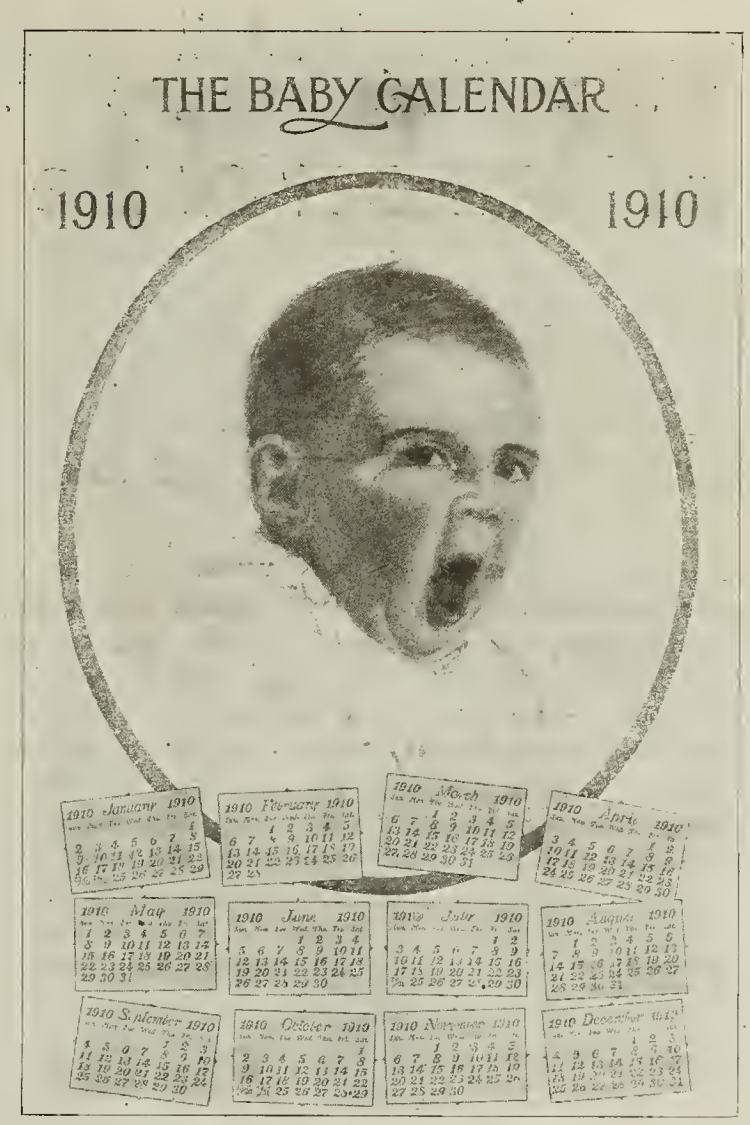
Herbert Quick, our new editor, is a farmer himself and has lived among farmers all his life. He has been in addition, a writer of national reputation, a successful business man and mayor of Sioux City, Iowa.

The new and greater FARM AND FIRESIDE will show you how to get bigger crops, how to raise better live stock, how to make more money out of every department of the farm. The best men in every branch of agriculture will write for the new and greater FARM AND FIRESIDE.

The Farmers' Lobby

FARM AND FIRESIDE has undertaken for its readers perhaps the most important coöperative work ever begun by a farm paper: A lobby for farmers at Washington. The railroads, the great manufacturing industries, nearly all the most important commercial enterprises have representatives at Washington who follow every bit of legislation pertaining to their interest, and keep their employers informed of what is being done.

The director of FARM AND FIRESIDE'S Farmers' Lobby will be Judson C. Welliver, one of the best known legislative writers in the country. He will attend the sessions of the United States Senate and of the House of Representatives. He will tell you in FARM AND FIRESIDE how the votes were cast on matters of interest to farmers. You, as a reader of FARM AND FIRESIDE, will get this service without cost.



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The new and greater FARM AND FIRESIDE is going to interest every member of the family. Besides all the farm news, the fireside departments will be bigger and better than ever before. This winter you will get in FARM AND FIRESIDE a complete thrilling novel, many delightful short stories, a complete department for children twice a month, and the latest fashions. Besides all this, FARM AND FIRESIDE will bring you on its cover, twice every month, a beautiful high-art picture in colors which will decorate any home.

Lewis and Politics

One of the most successful features in FARM AND FIRESIDE—if thousands of enthusiastic letters from our readers are any indication—is the page of politics every two weeks from the pen of Alfred Henry Lewis. Hot-shot talks from Mr. Lewis' pen will stimulate the minds of FARM AND FIRESIDE readers on the important political subjects of the day.

The Fashion Department will be a fashion magazine in itself. There are to be more patterns each issue of FARM AND FIRESIDE than we have ever before shown—patterns which are easy to follow and have a stylish air of their own. Every woman who reads FARM AND FIRESIDE can make her own dresses and have them stylish and attractive.

For Young Folks

The Girls' Department grows more popular each issue. It tells all about the newest fads and fashions, ideas for entertaining, church fairs, bazaars, notes on etiquette and beauty hints. The children's department will be better than ever before. In addition FARM AND FIRESIDE has an important new department for mothers.

To Present Subscribers

Although your subscription to FARM AND FIRESIDE has not yet expired, it will pay you to renew now in advance. You will thus obtain the old low prices on FARM AND FIRESIDE and will receive the Baby Calendar without cost. Your new subscription will be entered to begin the month after your present subscription expires. The date of expiration of your present subscription is shown on the labels that come on this issue of FARM AND FIRESIDE.

To Past and New Readers

If your subscription has expired or expires this month, send your renewal now, and get the new and greater FARM AND FIRESIDE at the old low prices, and obtain the Baby Calendar without cost. If you are not now a subscriber to FARM AND FIRESIDE, now is your chance to get the greatest farm paper in America at half price and obtain the Baby Calendar without cost.

Twenty-Five Christmas Post-Cards

We have secured for FARM AND FIRESIDE readers the most beautiful set of Christmas Post-Cards in the world. There are twenty-five of them. Every one printed in gold and many colors, and all packed in a handsome colored box. You can get them all without cost.

You will find a picture of some of the post-cards on page 27 of this number.

How to Get the Cards

You can obtain the 25 Christmas Post-Cards in two ways.

1st. Without Cost. We will send you the box of 25 Christmas Post-Cards if you will send us two subscriptions to FARM AND FIRESIDE—one of the two subscriptions can be your own. Each of the two subscriptions may be for four years, or two years, or one year at the prices given opposite. But remember that you must send two different subscriptions. The Baby Calendar will be sent to each of the two subscriptions.

2nd. We will send you the box of 25 Christmas Post-Cards if you add 15 cents to the price of your subscription to FARM AND FIRESIDE. You will receive the Baby Calendar free.

Our Great Offer

Until December 25th you can obtain FARM AND FIRESIDE at the prices given below. The new price is 50 cents a year. If you send us a subscription on the name blank opposite you will receive the 1910 Baby Calendar without cost.

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FARM AND FIRESIDE
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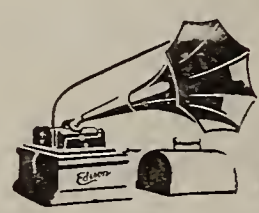
An Edison Phonograph means A Merry Christmas for Every Member of the Family



For Father

who comes home tired but eager to be amused, who cannot afford the theatre for himself, to say nothing for a large family, who enjoys the old ballads such as "Robin Adair," "Highland Mary," "Annie Laurie" and "Home Sweet Home," the Edison Phonograph is an ideal Christmas present because it gives him the music that he loves, sung by great singers, at a less expense than attendance at theatre or concert, and by his own fireside.

For Mother

who loves sacred music and who does not often have an opportunity to hear "The Palms," "Holy City," "Gates Ajar," or "Lead, Kindly Light," as sung by the great tenors and sopranos of the city churches, but who can enjoy this music at home with the aid of an Edison Phonograph just as often and just as fully as she cares to listen, and who will find in the ownership of an Edison Phonograph and the Records that she loves a perpetual reminder of the affection of the family that presented them to her.

For Big Brother

who would go to the musical comedy and variety show oftener if he could, and who likes the sort of things a fellow can whistle, and wants to hear "Hello People" or "The Glow Worm" or "Cuddle Up a Little Closer," or something of that kind, the way they sing it at the shows or at the halls, and who could hear these things that way, because an Edison Record faithfully reproduces the exact mannerisms of the singer as, for instance, in the Harry Lauder Records, if he could only be so fortunate as to get an Edison Phonograph for Christmas.

For the Children

because each and every one of them—bless their hearts—enjoy music, especially the kind of music they can march by or sing to, and because one Phonograph will delight and entertain an entire circle of children, so that absolutely the best Christmas present for every member of the family and for the whole family is an Edison Phonograph.

Edison Phonographs are sold at the same price everywhere in the United States, $12.50 to $125.00

Edison Standard Records, 35c. Edison Amberol Records (twice as long), 50c. Edison Grand Opera Records, 75c.

There are Edison dealers everywhere. Go to the nearest and hear the Edison Phonograph play both Edison Standard and Amberol Records. Get complete catalogs of Phonographs and Records, from your dealer or from us.

NATIONAL PHONOGRAPH COMPANY, 29 LAKESIDE AVENUE, ORANGE, N. J.

EASTERN EDITION

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FARM AND FIRESIDE

THE NATIONAL FARM PAPER

DECEMBER 10, 1909

CHRISTMAS

MOVING PICTURES

OF THE WONDERFUL WORLD CHAMPION

DAN PATCH 1:55

MAILED STOCKMEN **FREE** AND WITH ALL POSTAGE PAID

THIS IS THE LATEST HORSE SENSATION AND GREATEST TRIUMPH IN THE MARVELOUS AND REALISTIC MOVING PICTURE ART.

It is a New Invention that you can carry in your pocket and show your friends instantly day or night, either once or a hundred times and without a machine, curtain or light. It is the most Attractive Novelty and most pleasing Dan Patch Souvenir ever Invented and shows Every Motion of Dan Patch 1:55 in pacing one of his Marvelous and Thrilling World Record Miles and it is Absolutely True To Life.

I want to assure you that it is the most successful Moving Picture ever taken of a world champion horse in his Wonderful Burst of Speed. If you love a great horse and want to be able to see him in Thrilling Motion Pictures at any time as long as you live **Be Sure And Accept My Remarkable Offer Before They Are Gone.**

I reserve the right to stop mailing these very expensive moving pictures without further notice, as this is a special free and limited offer.

A MILE OF THRILLING RACE PICTURES,

2400 MOVING RACE PICTURES OF DAN PATCH 1:55

and every one of the 2400 pictures shows the King of all Horse Creation as plainly as if you stood on the track and actually saw the mighty Dan Patch 1:55 in one of his Thrilling Speed Exhibitions for a full mile. Just think of it! **2400 Moving Pictures Taken Of Dan** in 1 min. and 55 sec. means 21 pictures taken for every second all of the way around the entire mile track from the back seat of a high power automobile.

You Can See Dan Shake His Head To Let His Driver Know That He Is Ready And Then You Can Watch Every Motion Of His Legs As He Flies Through The Air With His Tremendous Stride Of 29 Feet. As A Study Of Horse Motion Alone This Is Better Than If You Saw The Actual Speed Mile Because You Can See Dan Patch Right Before You For Every Foot Of The Entire Mile And Not A Single Motion Of His Legs, Body Or Head Can Escape You.

You can see his Thrilling Finish as he strains every nerve and muscle to reach the wire in record breaking time, you can see his driver dismount and look at his watch while thousands of people crowd around, you can see his caretaker force his way through the crowds, uncheck Dan and then throw a beautiful woolen blanket over him to prevent catching cold and then you can see him walk up the track before the Madly Cheering Multitude.

Wherever the Original Moving Picture, of the Fastest Harness Horse In The World, is shown, people involuntarily call out "Come on Dan"—"Come on Dan." The Original Moving Picture Of Dan Patch Pacing A Great Mile Is The Most Realistic And Thrilling Picture You Ever Saw. I Have Taken Part Of The Original 2400 Wonderful, Sensational Pictures And Made Them Into A Newly Invented Pocket Moving Picture that you can easily carry with you in your pocket and show to your friends at any time, day or night. It does not need a machine, it does not need a curtain and it does not need a light. It is all ready to show instantly, either once or a hundred times **CREATES A SENSATION WHEREVER SHOWN.** If you admire a great world champion who has gone more extremely fast miles than All of the Pacers and Trotters Combined that have ever lived then I am sure you will write me today for one of my Wonderful Moving Pictures of the King of all Harness Horse Creation, Dan Patch 1:55. ☞ The Reduced Pictures On This Page Show Dan In 16 Different Positions. Your Moving Pictures Will Be Much Larger.

MY LARGE MOVING PICTURES MAILED FREE TO ALL STOCKOWNERS

With Postage Prepaid---If You Are A Farmer, Stockman Or Poultry Raiser I Require A Correct Answer To These Three Questions. ⟶ You Must Answer These Questions

1st. In what paper did you see my Moving Picture Offer? *2nd.* How many head Each of Horses, Cattle, Sheep, Hogs and Poultry do you own? *3rd.* How many acres of land do you own or how many acres of land do you rent? ☞ I Personally Guarantee Free To You One Of These Marvelous Moving Pictures, If You Answer These Questions And Write Me Today.--Signed.--M. W. SAVAGE.

IF YOU ARE NOT A STOCKOWNER AND WANT THE MOVING PICTURES SEND ME 25 CENTS FOR POSTAGE,

Packing, etc., In Silver or Stamps and I will mail you this wonderful Moving Picture of Dan Patch 1:55, the fastest harness horse the world has ever seen. -- If you send me Twenty-five Cents in Silver or Stamps--EVEN if you do not own any stock or land, I will mail it to you postage prepaid. It costs Thousands of Dollars to have one of the original pictures taken and reproduced. Write to

INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN.

I OWN THE 5 FASTEST WORLD CHAMPION STALLIONS EVER OWNED ON ONE FARM IN THE HISTORY OF THE WORLD.

On my "International Stock Food Farm" of 700 acres I own Dan Patch 1:55, Minor Heir 1:59½, Directum 2:05¼, Arion 2:07¾, Roy Wilkes 2:06½ and also about 200 head of Young Stallions, Brood Mares and Colts and they eat "International Stock Food" every day. I will be pleased to have you visit my farm at any time and see my horses and their splendid condition. I feel sure that you never saw their equals at any Fair or Horse Show. **ACTUAL TEST IS WHAT PROVES EVERYTHING IN THIS WORLD.** If "International Stock Food" gives paying results for the highest priced horses in the world on my farm it certainly will pay you to use it for all of your stock. Remember that if it ever fails to give your Horses, Cattle, Sheep or Hogs, better assimilation and digestion, purer blood and perfect health with quick growth and fattening that it will not cost you a cent no matter whether you have used one hundred pounds or five hundred pounds and you are to be not only the user but also the sole judge of results. I will leave the entire matter for you to decide and accept your own statement. How the United States Government backs my claims that "International Stock Food" is strictly a medicinal tonic, blood purifier, etc. During the Spanish-American War, United States officials made a special examination and decided that "International Stock Food" was strictly medical and I paid $40,000.00 patent medicine war tax. Can any honorable man deny this evidence? "International Stock Food" and label design is registered in Medicinal Department as a Trade Mark No. 52791 giving it commercial standing and rights as a distinctive

"TRADE NAME" FOR A MEDICINAL, TONIC PREPARATION

The United States Government issued me a Trade Mark No. 22886 on the world famous lines, 3 Feeds for One Cent - as showing how cheaply International Stock Food can be mixed with the regular grain feed - My label shows a list of the medicinal ingredients used and 250,000 Dealers have sold "International Stock Food" for over 20 years as a medical tonic preparation.

Mr. F. A. Hawley, Waverly, Neb., Won in the Forest Patch Contest

18 Acres of Floor Space — Covers Over A City Block

INTERNATIONAL STOCK FOOD FACTORY

LARGEST IN THE WORLD

Covers Over a City Block and Contains Over 18 Acres of Floor Space
CASH CAPITAL $2,000,000.00
ASK YOUR DEALER FOR MY PREPARATIONS

International Stock Food	Dan Patch Stable Disinfectant
International Poultry Food	Dan Patch White Liniment
International Compound Absorbent	International Worm Powder
International Pheno-Chloro	International Hoof Ointment
International Distemper Remedy	International Sheep Dip
International Foot Remedy	International Cattle Dip
International Colic Remedy	International Hog Dip
International Louse Killer	International Harness Soap
International Louse Paint	International Gopher Poison
International Gall Heal	International Worm Remedy
Silver Pine Healing Oil	International Healing Powder
International Heave Remedy	International Quick Blister

ASK YOUR DEALER FOR ANY OF THESE PREPARATIONS and insist on having what you ask for. Beware of many cheap and inferior substitutes and imitations. High Class Dealers Sell My Preparations on my Spot Cash Guarantee to refund your money if they ever fail.

DO YOU EXPECT TO SEE THE DAY WHEN THESE WONDERFUL DAN PATCH 1:55 RECORDS WILL BE EVEN EQUALLED?

DAN PATCH, 1:55

HAS PACED

1	MILE IN	1:55
1	MILE IN	1:55¼
2	MILES IN	1:56
14	MILES AVERAGING	1:56½
30	MILES AVERAGING	1:57½
45	MILES AVERAGING	1:58
75	MILES AVERAGING	1:59½
120	MILES AVERAGING	2:02½

DAN HAS BROKEN WORLD RECORDS 14 TIMES

In addition to all these records Dan Patch is proving to be one of the greatest sires of both pacers and trotters in all horse history - Look up his large official list of standard performers.

Dan Patch 1:55 has gone more extremely fast miles than the combined miles of all the trotters and pacers that have ever lived. Be sure and remember these facts when you think of some horse equalling Dan's marvelous performances.

For seven years Dan Patch has eaten "International Stock Food" every day mixed in his regular grain feed. It has given Dan Purer Blood, More Strength, More Endurance, More Speed and Perfect Health. It is constantly used and strongly endorsed by over Two Million Farmers and Stock Breeders, as the greatest Animal Tonic, and has been for 20 years. No other preparation has such strong United States Government and practical stock breeders endorsement, as has International Stock Food.

Signed, M. W. SAVAGE, Owner of International Stock Food Co.--and also--International Stock Food Farm

EASTERN EDITION

ESTABLISHED 1877
The Illustrated Farm and Family Journal

24 NUMBERS
50 CENTS

FARM AND FIRESIDE

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F. D. Coburn—Promoter of Kansas

By J. C. Mohler

We here present a study of a man who has had a unique place in American agriculture. Mr. Coburn has concentrated his work on the agriculture of his state—Kansas. It needed him, and it had the qualities to justify him. Every state needs a Coburn; but only one state ever had one. He is presented here by one who has had long and intimate personal contact with him, and who knows whereof he speaks. Coburn has made farming dramatic and interesting as well as successful. If every state in the Union had such a man to lead its farmers, the farms would be transformed. With the thought of opening the eyes of men to the opportunities for public service along just these lines, we take pleasure in presenting this, the second of our series of life studies of "Benefactors of Agriculture."—EDITOR.

A FIGURE conspicuous in American agriculture, made unique by his lifetime service for the husbandmen, is F. D. Coburn, Secretary of the Kansas State Board of Agriculture. Probably no more striking example exists of devotion to the welfare of a state than his work in upbuilding the farming industry of Kansas. The outstanding feature of his career is his fidelity to these interests. With no deviation he has given the best of his life to the state and its farmers.

This loyalty has been inspiring. Neither the glamour of political preferment, nor the glitter of gold could tempt him from his post. Honors were rejected, and better paying propositions turned down. Had he said the word he would have been the state's governor; and, appointed United States senator, he declined, in order that he might continue his work for the tillers of the soil.

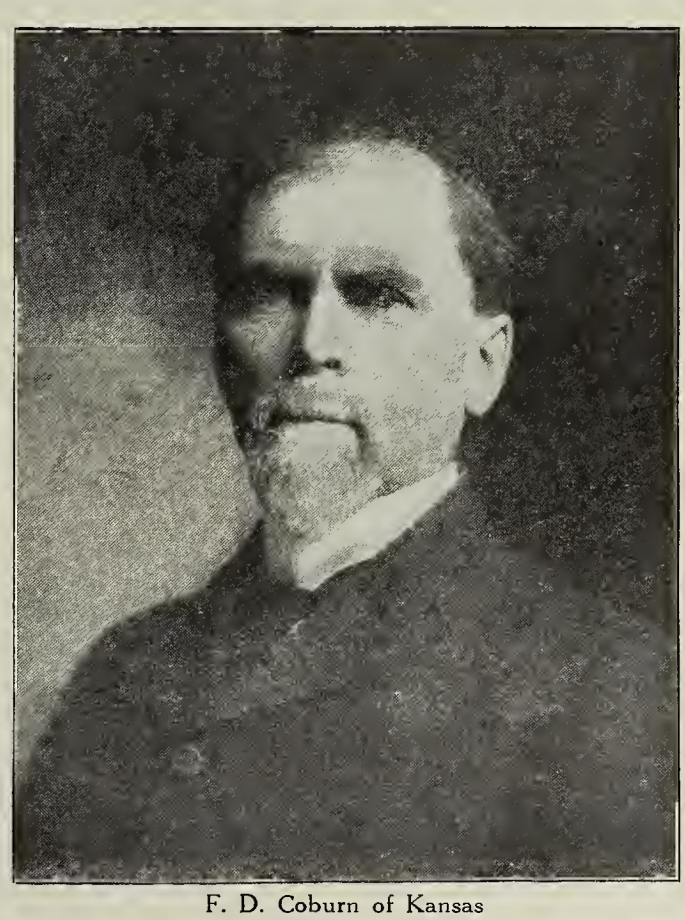
Just after he refused the senatorship a resolution was adopted by the Board of Agriculture, made up of representatives from county and district agricultural societies of the state, which read:

> Resolved, That we hereby express our acknowledgments to our secretary, F. D. Coburn, for the compliment, unprecedented distinction and dignity conferred upon the Kansas State Board of Agriculture and the office of secretary thereof by his refusing the United States senatorship bestowed upon him by the governor of this state. By such action he has set an example for the nation and for all men who labor, pointing out that devotion to the cause of genuine agriculture in its best sense possesses a dignity and commands honors second to none.

Not only did politics seek to claim him, but numerous business enterprises endeavored to secure his services, offering more than twice the state's remuneration; but love for his work outweighed mere money, and he finds more joy in the fruits of his labors than in the possession of greater riches. He neither worships the god of mammon nor kowtows to the political boss, and serenely pursues the even tenor of his way in laboring for Kansas and her people.

Ever since he laid down his musket at the close of the Civil War to take hold of the plow-handles, he has worked for the agriculture of his state—first as a farmer, gaining practical experience and learning valuable lessons; then as agricultural writer; later as editor of a farm journal, and finally as Secretary of the State's Board of Agriculture. One state official office at about the time he took office had gone so far as to compile a voluminous report in which it was shown that farming in Kansas did not pay. This was a grotesque treatise, but nevertheless the farm practices of that era were in the main not adapted to win success. Straight grain farming was the rule, with no adequate attention to live stock.

Mr. Coburn's first efforts, as secretary, were to show the husbandmen the foolishness of the playing a game of chance with the weather and a single crop, teaching that it must give way to a well-balanced and more intensive agriculture, a diversity of crops and improved live stock. Instead of specially encouraging immigration to the state, more attention was given to promoting the prosperity of those already there, assuming that their successes would be the state's best advertisement. So he educated the farmer to better systems; to new and approved methods, to new crops of adaptability and merit; to proper tillage, careful cultivation and such as would best conserve moisture; to an appreciation of the importance of well-fitted seed-beds and good seed; to right feeding, right breeding and right marketing; in short, to effort and energy along proper channels. To these ends he availed himself of the best scientists, practical farmers, stockmen and others whose knowledge was published, along with the results of his own investigations, in reports regarded as models of their kind. The advantages of alfalfa, Kafir-corn, the sorghums for forage, and other crops were made clear. The importance of dairying was shown, as well as the benefits of converting the raw material grown on the farms into beef, pork, mutton and milk. With what effect this doctrine was expounded may be indicated by the statistics. In 1894, the value of the state's live stock aggregated $78,739,000; in 1908 it was $197,511,000. Fifteen years ago the value of the products of live stock sold annually amounted to about $50,000,000; since, in the single year 1907, it approximated $100,000,000. In 1908, the value of the farm products aggregated $277,733,958, or nearly one hundred and fifty



F. D. Coburn of Kansas

per cent more than in 1894, and alfalfa increased from ninety thousand to one million acres.

While, of course, other agencies have been helpful to this end, the teachings of Coburn throughout the years have been largely influential in the transformation. He was the fugleman of prosperity, drilling the Kansas farmers in the science of agriculture to a point where they are masters of the situation. To be sure, Mr. Coburn didn't make the wholesome and favoring climate, the deep alluvial soil, the rain and the sunshine, but what he did was to tell the people of Kansas how best to take advantage of them. Potentially great, it required a Coburn to point the way to converting the state's possibilities into actualities.

Corn and wheat have been, and are, the state's principal products, but the vital difference in the agriculture of to-day is in the enlarged areas of other crops, the growing tendency toward rotation, better tillage and increased numbers of blooded stock; in short, the wide-spread adoption of a more rational system. A shortage in one product or low prices in another in any one season no longer means embarrassment to the Kansas farmer, for his present-day diversity well-nigh provides a guarantee against a losing-year.

In pursuance of Coburn's plan to modernize the agriculture of the state, numerous publications were issued, and among them quarterly reports, popularly known as the "Red Line Series," on such subjects as: "Feeding Wheat," "Alfalfa-Growing," "Corn and the Sorghums," "Cow Culture," "The Helpful Hen," "The Beef Steer (and His Sister)," "Pork Production," "The Modern Sheep," "The Horse Useful," "Forage and Fodders," "Short-Horn Cattle," "Hereford Cattle," "Polled Cattle," "Wheat-Growing," "Potato Production," "The Corn Book," "Modern Dairying" and "Profitable Poultry." These cover the best that is known on their respective subjects, especially as applicable to Kansas. No detail as to breeding, feeding, seeding, cultivation or harvesting is overlooked, and the matter is so arranged as to be easily understood and readily applied. Then, too, their make-up is inviting quite unlike many agricultural documents that appear to be published on the theory that any dress and setting is good enough for farmers. They are profusely illustrated, Mr. Coburn having great faith in the educational importance of pictures as conveying lessons that otherwise might not be learned. As the usefulness of the board's reports came to be known, the demand increased until big editions of twelve thousand to twenty thousand copies—distributed free—are entirely insufficient to supply it.

While laboring for Kansas and her people, Mr. Coburn has achieved international fame, and the agriculture of other states and foreign lands has been enlightened and improved by his teachings. Kansas could not "corner" the benefits of his work, and his usefulness and influence, like all such work, is felt throughout the farming world.

In the case of such a man, the title "Secretary" of a state board of agriculture does not adequately suggest his position. The title never fitted him, any more than the knickerbockers of youth fit full-grown men. While the membership of the board comes from the best of the state's citizens, the secretary is its executive officer and in reality the whole parade. He has *carte blanche* to do good in his own way, which is incomparable. His capacity for work is marvelous, those of us can testify who have followed him through a strenuous day on his eight-hour schedule—eight hours in the forenoon and eight in the afternoon. He has brought ability to the board that would shine in a President's cabinet; and in fact several states wished him to be Secretary of Agriculture under McKinley. Only recently, Senator Curtis, of Kansas, is said to have announced his intention of urging Mr. Coburn for the place whenever a vacancy occurs, but those who know Mr. Coburn best believe there wouldn't be the slightest likelihood of his accepting such a position, if offered.

He is recognized throughout the world as a foremost authority on swine and alfalfa. While on his Kansas farm a third of a century ago, he wrote his great book entitled "Swine Husbandry," which has stood since as the standard treatise on hogs—hogs, mind you, the kind the corn-belt produces, distinguished from pigs as they are regarded in the Atlantic Coast states and Great Britain. He has recently prepared a still greater illustrated work, entitled "Swine in America," in which all phases of hog-raising are more comprehensively treated down to the minute.

His enthusiasm for the hog and for Kansas, as well as his vivid literary style, appear in this panegyric:

> In Kansas the hog finds the favored zone—his El Dorado—and here he always makes both ends meet; for Kansas is a corn-orchard parked with grasses and fragrant with the bloom of alfalfa, the greatest forage plant vouchsafed by Providence to men, growing here in a profusion elsewhere unknown. Hence it is that Kansas possesses more of these latest model self-lubricating mortgage-removers than all New England and fifteen other states and territories.
>
> Uncle Sam, our foremost connoisseur of pork, but with no especial partiality for Kansas, recorded in a report that Kansas hogs are worth "per capiter" fifteen per cent more than the Missouri hog; thirty-six per cent more than Kentucky hog; fifty-six per cent more than his Virginia compatriot; ninety-seven per cent more than the Arkansas hog, and one hundred and forty-eight per cent more than Florida's favorites.
>
> There is probably no other territory of the same area as Kansas where the conditions of climate, soil, food and care are more congenial to the hog's health and wholesome development, and he is nowhere found so developed except among and by a high order of people. High-class swine are unknown and impossible among a low-class people.
>
> Kansas swine, coinage of Kansas grass, grain and

brain, in the world arena at Chicago, and then at St. Louis, met the world-beaters and beat them. She has given Poland, China, Chester county, Berkshire and New Jersey a thousand years the lead and easily distanced the namesakes of all.

The Kansas hog, in his sphere typifying the good, the true and the beautiful, is a joy even to the Hebrew, and, like the state that lends him as a solace to humanity, is in but the morning of his career. His one passport, everywhere demanded and always sufficient for entry to presidents, potentates, or peasants, is—"Kansas" on the rind.

Alfalfa, however, may be termed Mr. Coburn's hobby, and he carries a wisp of this wonderful legume for luck in preference to the proverbial rabbit's foot. He ranks the alfalfa movement among the great events of the century, and by his persistent exploitation of its merits Kansas has come to be a leader in its production.

He has published two books on it, "Alfalfa" and "The Book of Alfalfa"—a companion volume for "Swine in America," and has treated it exhaustively in his official publications.

As the constant dropping of the water will wear away the hardest stone, so Mr. Coburn's long-time and systematic endeavors for agriculture brought inevitable results. He has been the embodiment of the never-say-die spirit which Kansas, after her earlier experiences, needed. His faith in Kansas and her capabilities was long since affirmed by developments. Year by year increases were recorded and improvement made, and finally when a stable basis seemed to be established, the secretary inaugurated the campaign of publicity that has developed into what many consider his most effective work for Kansas.

Besides directing the state's agriculture, he is Kansas' "press agent." His striking brochures, leaflets, booklets and cards, telling briefly and lucidly of Kansas' resources, productions, people, prosperity, preëminence and possibilities, have been telling factors in making Kansas everywhere favorably known. A hearty welcome is given his "stuff" by the agricultural press, the country weeklies, and many of the metropolitan dailies cheerfully according it space they would not sell for money.

Such words as "drought," "cyclone," "blizzard" and "calamity," as applicable to Kansas, have no place in his lexicon. He has always stoutly maintained that Kansas was not in any wise their special habitat and proves it by official records. Kansas being the premier wheat state, it may be supposed that wheat is the state's big crop, but Mr. Coburn, in a brochure entitled "The Corns that Kansas Farmers Have," corrects the mistake thus: "Compared in value and importance with her corn, wheat is a side issue, and but one of the secondary items, the worth of which must be aggregated to even approach the value of corn. It is our wheat that makes us famous, our corn that makes us rich. In almost any year three or four of the more northern of the state's one hundred and five counties produce more corn than the entire Dominion of Canada. In the past twenty years the state has raised 3,087,239,945 bushels, worth on the farms where grown over $912,969,601.

Several other states have established or are establishing their systems of gathering, compiling, tabulating, publishing and disseminating statistics of agriculture and live stock on Mr. Coburn's Kansas plan.

Mr. Coburn seems to have been born with the publicity virus in his blood. One light may shine as brightly and burn as steadily as another, albeit the one is under a bushel unseen and unknown. Mr. Coburn has lifted the bushel from Kansas, and her light has been shining with such illuminating radiance that the world has come within the focus of its rays. He kept his story of Kansas before the public, and the public, in time, "sat up and took notice." Ex-residents who had gone back East "to wife's folks" began returning; others followed. In ten years ending with 1908 Kansas gained in population two hundred and sixty-six thousand, and in 1909 added fifty-one thousand more. Values were increased and the steady ascension in price of land has not yet reached its summit.

Yet in all this advertising Mr. Coburn speaks by the card, is always conservative and despises exaggeration. He who investigates his most breath-catching statements finds them facts. In Kansas the issue is settled when "Coburn says so." In crop reporting he never indulges in "guess" or "prophecy," and the yield of any crop is never available from his office until after it has matured and the growers have reported; but so long as there is doubt as to the final outcome of any Kansas crop or institution, Mr. Coburn takes the optimistic side.

While declining office unconnected with agriculture, he served as president and vice-president of the Board of Regents of the Kansas State Agricultural College for many years. At New Orleans he awarded all prizes given for exhibits of swine at the exposition of 1884. He was sole judge of four different breeds of swine at the Columbian at Chicago in 1893, one of a committee of three who made all other swine awards there, and was president of the first National Corn Congress, held in Chicago. Without solicitation, he was appointed Chief of the Department of Live Stock of the Louisiana Purchase Exposition at St. Louis in 1904, having been loaned for this work by the Kansas Board of Agriculture. The prize-list and regulations governing this department of the exposition were the most complete and comprehensive ever formulated—mile-stones in exposition history. As an editor he suggested and later presided at the organization of the first live-stock show held in the Louisiana Purchase territory.

Mr. Coburn was born on a farm in Jefferson County, Wisconsin, in 1846. He served in the Civil War in two Illinois regiments, was mustered out in 1866 and went to Kansas the next year, walking across the Missouri River on the ice to reach the state with which he since has been so prominently identified. Actively engaged as a farmer and breeder of improved live stock until 1880, he was called to the service of the state's Board of Agriculture. A year later he was made its secretary, but shortly after became managing editor of a prominent live-stock journal. In 1894 he was again elected secretary, and his election at each of the seven succeeding biennial meetings of the board have been unanimous and by acclamation.

He is self-made. Ever since it dawned upon him that he was his own salvation, he has been hustling, working, in order that the inexorable requirements might be fulfilled. If he were asked the key of success, he would probably reply "work, work, work, and whatever you do, do right, no matter how unimportant it may seem; do it just a little better than it will be done by the other fellow, and then improve on that." Mr. Coburn gained his learning in the great school of Knock-About, which is in session twelve months in the year, with no vacations.

He admits having numerous deep-seated dislikes. For example, he detests a liar, a shirk, a pretender, a man who thinks with his lungs, a cigarette-smoker and a sheep-killing dog. He is too little the hypocrite to pretend that he esteems all men alike, and cheerfully concedes his greatest fondness is for his friends rather than for the other fellows. His stanchest friends are those who count their close acquaintanceship by decades and scores of years; who have known him as a soldier boy, a farm laborer, a farmer, and editor and an official. He thinks the grade of piety which is good enough for week-days will serve for Sunday; or that the piety good for only one day in seven is in sad need of reconstruction. Four times he has been president of the Kansas State Temperance Union, about the only public organization of a non-agricultural nature with which he has a close identity. He believes in civic righteousness, and is a living example of clean habits, right thinking, high ideals and wholesomeness.

Mr. Coburn is democratic to a degree. While he does not believe that being a representative of the farming class makes it incumbent on him to affect the garb of a stableman he takes even a more sympathetic interest in the problem of the humblest laboring man, whatever his creed or color, than in that of the pretentious individual of the noisy voice and vest, who comes in automobile and silken tile. Toward those who would be patronizing or severely impressive he is callousness itself.

Kansas' foremost citizens declare their Board of Agriculture "the best investment ever made by the state" and "Coburn the most useful citizen." A prominent man in public affairs of Missouri recently opined that his state might well afford to pay Coburn two hundred thousand dollars a year to do for Missouri what he is doing for Kansas. To his counsel and efforts must in large measure be attributed the state's wonderful progress and development; with Providence and the husbandmen he shares in the glory of making the Sunflower State the parquet of prosperity, as he will have a share in the still greater achievements that must inevitably follow.

ALFALFA

There are some silent subsoilers that do their work with ease, and, in their way, more effectually than any team or plow ever hitched. The clover-plant is righteously famed as one of these, but alfalfa is its superior. Its roots work Sunday as well as Saturday, night and day; they strike five, ten, fifteen or twenty feet deep, making innumerable perforations, while storing up nitrogen, and when these roots decay they leave not only a generous supply of fertility for any desired crop, but millions of openings into which the airs and rains of heaven find their way, and help to constitute an unfailing reservoir of wealth, upon which the husbandman can draw with little fear of protests or overdrafts.—*Foreword to F. D. Coburn's Book of Alfalfa.*

The Healthfulness of Farming

Is It All It Should Be?—By V. J. Youmans, M.D.

Dr. V. J. Youmans, the author of this article, is a physician, a graduate of the Sheffield Scientific School of Yale and of the College of Physicians and Surgeons of New York. He was at one time editor of Appleton's "Popular Science Monthly," as assistant to his father, the great chemist and physicist, Dr. E. L. Youmans. The subject of this article is of ever-present vital importance to every family, and is here outlined by a thoroughly competent hand. Readers who care to refer to our issue of May 25th last, will find there an article on the disposal of farm sewage well worth re-reading. Dr. Youmans' writings will be seen frequently in future issues.—EDITOR.

During the last ten years no subject has excited more discussion and occupied more space in newspapers and magazines than city health and sanitation. Doctors, hygienists, and health boards have racked their brains for ways and means of diminishing the ravages of this disease, or stamping out that one, of securing clean milk and untainted meat, healthful ventilation, freedom from dust, a pure water supply, adequate sewage disposal and dozens of other reforms intimately bound up with the physical well being of the city dweller. The result of all this agitation and study has been a notable improvement in the hygienic condition of municipalities.

But, strange to say, in many sections hardly an echo of this wide-spread movement has reached the farm. The reason for this curious fact seems to be the general existence of a notion that farm life is so unavoidably healthy that attention to hygiene and sanitation there is unnecessary. There never was a greater mistake. The farmer has, indeed, certain obvious advantages over his city brother—better and cleaner air, an outdoor life, relative freedom from dust, less liability to contact infection (where he rubs elbows with one or two people a day, the city man is jammed against a hundred possibly diseased individuals). The latter eats his lunch at a restaurant, where the food may be clean and wholesome, but is quite as likely to be dangerously dirty—and, in case the cook or dishwashers have consumption or other infectious disease, actually poisonous as well. In his own home he lives on cold-storage eggs, milk two days old and bake-shop bread.

In these and other details of his daily life the farmer is much better off than his city neighbor. But in other respects exactly the reverse is true, and he is called upon to solve sanitary problems which the individual city man never has to meet. He has, for instance, no sewer running by his front door to carry off the waste products of the household, no municipal supply of officially-certified water brought directly into his house, no gas or electricity which he can tap if he has the price. No Board of Health paid to look after his health, and to promptly isolate his neighbors' family afflicted with an infectious disease.

This is as true for the wide-awake, up-to-date farmer as for the shiftless, lazy one. These conditions are inseparable from farm-life, or at least inseparable from it until the farmer has devised special solutions of his own invention.

In the city, provisions for the preservation of health are taken care of by the community through its public servants. In the country each farm is a little community in itself; its sanitary provisions are in the hands of the head of the household, and they are good or bad according to the vigor and intelligence with which he attends to them.

Fortunately there has been plenty of practical experiment and experience along these lines, to which he can refer for guidance. The septic tank as a method of sewage disposal has gone beyond the trial stage, and farm water systems, with plumbing to house and barn, have been established in enough places to prove not only their practicability, but their economy, as savers of time, and promoters not only of comfort, but of health. The things the bacteriologists have discovered have been worked into applicable form by cement experts, house-builders and householders, and thoroughly tested.

Unlike the city dweller, who has to depend on the efficiency or inactivity of his city government, the farmer is the master of his own fate in regard to sanitary arrangements on his particular domain. Unless he bestirs himself, he as well as his wife has to work without the modern conveniences which the city householder takes as a matter of course. And these conveniences are by no means unimportant in their bearing on health. The simple heating of a farm-house is no easy matter if an attempt is made at the same time, as it should be, to secure adequate ventilation. The problem of doctor and medicines is also far more difficult in the country, and is too often solved by the easy but dangerous expedient of consulting the country storekeeper and dosing the family from his patent-medicine shelves.

The fact is, that while the farmer's natural surroundings are of a character to promote health, these very conditions deprive him of other things whose absence seriously complicates the problem of healthy living. The outdoor toilet, for instance, with its exposed vault, still a not uncommon method of sewage-disposal on the farm, is a dangerous and inexcusable abomination—a disease-breeder of extremely menacing character. The combination of this with the swarms of flies which make their home in the kitchen has probably compassed the death of more people by typhoid fever, or "the fever," as it is commonly called in the country, than any other single agency.

A characteristic case recently came to the writer's attention: A farmer's wife was taken ill with typhoid. Her bedroom was just off the kitchen, and both rooms swarmed with flies. The outhouse was about twenty-five feet from the kitchen-door. The flies had free access to it as well as to the bedroom and the food in the kitchen. Within a day or two after the death of the farmer's wife, the farmer himself was taken down with the fever and before he died, his daughter developed it. She was the only one of the three who survived. There can hardly be any question that the flies in this case were the active agents of infection. Here ignorance of what is now a commonplace of sanitary science—namely, that flies and typhoid-fever germs form as dangerous a mixture as gun-powder and matches—cost the life of at least one person, and completely wrecked a family. An occasional discussion of sanitation on the farm in their farm paper would have been a god-send to this family.

Cotton—What Average to the Acre?

Is a Third of a Bale Creditable or Profitable?—By John T. Bramhall

Cotton is going up. Tens of thousands of Southern hearts are rejoicing at the advance in what may be called the distinctive Southern crop. Rice and cane and tobacco are Southern crops, also, but they are sectional. Georgia has no especial interest in sugar-cane, nor has Tennessee in rice, nor Louisiana in tobacco, but all are attention when cotton is the subject of discussion. It is the rich man's revenue and the poor man's subsistence. Cotton is a paradox, for it is at once the wealth and the poverty of the South. Cotton pays the expense of many a youth's education in Northern or foreign colleges, and yet keeps more children out of school than any other one cause in the South. Cotton brings the Southern farmer more money than any other crop, and for that very reason, perhaps, is his chief bane and stumbling-block. For cotton is the easiest crop to raise; it is the crop presided over by a kindly Providence for the benefit of rich and poor alike, of idle and industrious, of simple and learned. There may be some difference in amount—we cannot all share alike, and it were madness to expect a bountiful crop at every harvest—but a little something will fall to all. That is the hope that sustains the renter who has put in his crop late and has wasted his time in hunting, fishing or talking politics when he should have been plowing his cotton.

The average crop of cotton in the South to-day is one third of a bale. A bale of cotton (five hundred pounds) may be called the maximum, like one hundred bushels of corn to the acre in the North. A few progressive farmers get a hundred bushels of corn, but more get twenty-five or thirty. And so, while a few good managers make a bale of cotton to the acre and even more, the average falls far below. Nor can this small yield be attibuted to the ravages of the boll-weevil, for while one hundred and eighty-seven pounds was the average for the past ten years, the average for the ten years preceding, when the boll-weevil was not active, was ten pounds less. What is the reason of this smallness of yield? Simply the same reason that gives this great country of ours a record of fifteen and one half bushels of wheat and twenty-five bushels of corn to the acre. Bad farming. Shiftless, wasteful husbandry on the part of so many that they press down the average. There is no sectional line about this at all. The Northern farmers have no warrant to criticize their Southern brethren in this regard, for they are quite as blameworthy.

One excuse for the poor crops is that the soil is exhausted. It may be, in places, but not as a rule. But why let the soil be exhausted? That is as much bad farming as neglecting the crop. As for the boll-weevil, there is no doubt that the destruction caused by this insect could be greatly minimized by better cultivation. Probably the leading cause of a poor crop is neglect of cultivation, as a large part of the crop is raised by tenant farmers who do not give the crop proper attention. It would not be unreasonable to propose that the minimum of the average crop should be made a half a bale instead of a third of a bale; the average to be raised by a vigorously-conducted campaign of education. Certainly it would be far more reasonable than to fix an arbitrary price for the product. Let us see how such an increase would affect the total product. The suggested increase, sixty-three pounds, would be about one eighth of a bale, and this, multiplied by the acreage of last year, about thirty-six million, would give a product of four million five hundred thousand bales, which at twelve cents a pound would have a value of twenty-seven million dollars. Or, suppose we reduce it to the more appreciable basis of the small patch of twenty acres, where the increase of an eighth of a bale to the acre would be two and a half bales, worth one hundred and fifty dollars. That would pay, would it not?

But all this, you say, is pure speculation and has no practical bearing. I am not so sure about that. Let me give some illustrations from the state of Louisiana, which I visited and studied last spring. The first is in the northern part of the state, in what are called the pine hills. The country is accounted poor, but I think without sufficient cause. I saw there a great deal of what I should consider very good land, but of late it has not produced good crops of cotton. I had a heart-to-heart talk with an old farmer in Union parish who begged me piteously to give him and his neighbors advice in their present distress. "Our farmers, especially the young men," he said, "are moving off to Texas, and the negroes are going to Oklahoma. Soon there will be no one to cultivate our farms. We do not understand this diversification that you tell about; we only know cotton and corn, and I expect we don't raise enough corn, anyway. And now the boll-weevil has ruined our cotton and I do not see what we are going to do. If you will tell us a way, we will try to follow it."

I could only tell him of the work Dr. S. A. Knapp, the special agent of the Department of Agriculture, is doing in Louisiana and Texas so successfully in teaching diversification and the better culture of cotton, and I urged him to have his brothers get in touch with the demonstration farmers, as they are called, and imitate their methods.

A little later, in the lower part of the state, in the rich parish of St. Landry, I met a large and successful planter, Mr. Boagni, who is noted for his progressive methods of farming. He told me of a certain part of his plantation which had been run down until it would scarcely produce a crop of any kind. It was on "the ridge," a sort of moraine, or shore line of the ancient river. He put in cow-peas, with a little fertilizer, and plowed them in. He then seeded it to lespedeza, which grows well on the Louisiana uplands, and made about two and a half tons of good hay to the acre. Now here, on poor land, which would not produce a quarter of a bale of cotton to the acre with the ordinary farming, the soil is put in condition to make more than the half bale by the simple expedient of a crop of cow-peas. The same thing could be done anywhere in Louisiana where both cow-peas and lespedeza thrive. There is no doubt whatever that the use of cow-peas and lespedeza or cow-peas alone would revolutionize cotton farming in Louisiana or, for the matter of that, throughout the South.

The Hon. Charles Schuler, the state commissioner of agriculture in Louisiana, in a special bulletin says: "In my own parish of De Soto (which is mostly pine upland) diversified agriculture has proven a marked success, and along with it the cotton crop has actually been increased. The boll-weevil first invaded the parish in 1904, and while things looked pretty blue for the next two years, the farmers with few exceptions began to diversify and adopt the up-to-date methods advised by the state experiment stations and the crop-pest commission.

"The result was," says Mr. Schuler, "that the 1907 crop was materially better than that of 1906, and the 1908 crop is fully forty per cent greater than the crop of last year." (I believe the facts, as shown by the revised crop reports, are that the 1907 crop was better only in spots, the farms of the "demonstrationers," but that the 1908 crop was more than double that of 1907.) The commissioner cites instances of two farmers, one of whom averaged one thousand pounds and over of seed-cotton an acre for the past three years on relatively poor upland soil, and another who had done as well on his upland and had made nearly a bale to the acre on his bottom land. (Divide seed-cotton by three to get lint-cotton.) Even in the bottoms of Avoyelles, where the weevils were worse than anywhere else in the state, Mr. Schuler found a farmer who made five hundred pounds of seed-cotton to the acre in spite of weevils and bad weather. Mr. Porter Fisher, farming at Keechie, Louisiana, says: "After five years' experience with the weevil, I am just now finding out how to make cotton. You have got to clean up your fields in the fall, plant early varieties, fertilize heavily and cultivate for all you are worth."

Mr. Knapp reports the experiments in diversification and in early planting of cotton and thorough cultivation very successful. His method is to get a number of farmers in a certain locality, usually where the farmers are most discouraged, to agree to follow out the methods prescribed on a particular field. The rest of the farm they cultivate after their own style. In the Louisiana work, at the end of the year—this was in De Soto parish, with tenant farmers who had been left in debt by last year's crop—the farmers had all done well, were out of debt and had something to start with for the next season.

Mr. Fisher, above quoted, puts the whole thing in a nutshell. "Clean up your fields in the fall, plant early varieties, fertilize heavily and cultivate for all you are worth." The fertilizing, as a rule, may be done through the agency of cow-peas. These may be sown, as is done with corn, at the last plowing, and then when the cotton is picked stock may be turned in to pasture the peas. The demonstration farmers do not insist upon fertilizing, but they make a strong point of cleaning up the stalks and giving thorough cultivation, and also of planting and taking care of a sufficient acreage of corn. I would put the instructions more simply, thus: "Cultivation, cow-peas and corn." Cow-peas, it is true, cost money—I had not forgotten that. It would cost the small farmer about three dollars an acre to sow cow-peas, but there is no doubt that the planter, or the factor, would be quite willing to advance the seed. And here is another point: Better cultivation and better crops would enable the small farmers to get out of debt and get out of the thraldom to the landlord and the storekeeper. And this would be worth a thousand times more than the mere increase of crop.

Cotton—a Ragged, Scattering Stand, on Soil Depleted by Continuous Cropping

The Right Kind of a Stand and a Group of the Men That Reaped the Profit

Cow-Peas—This Heavy-Growing Soil-Enricher is Proving a Mighty Factor in the Solution of the South's Fertility Problem

Mules of Many Types

A Maligned Animal That is Coming to Its Own—By W. D. Neale

It is said that Kansas City, Missouri, is the world's greatest mule market. St. Louis, Missouri, is the closest contestant for the honor. Yet few persons beside the mule-dealers know anything about this versatile beast that has helped to make Missouri famous. Most folks will say, "A mule's a mule," and give the matter no further thought. Not so with the dealer. He talks very differently. He will tell you about the "cotton mule," the "mine mule," the "sugar mule," the "levee mule," the "rice mule," the "pitters," the "advertisers" and the "mahogany mules." The skilled eye of the dealer will estimate a mule's height almost to the fraction of an inch and classify him at a glance.

The greatest seller on the market is the "cotton mule." About half the mules marketed are of this class. They are bought from December to the first of March by the Southern planters or the dealers who supply them. The "cotton mule's " height runs from fourteen to fifteen and a half hands, and he must weigh from seven hundred and fifty to eleven hundred pounds. The kind sought after by the Southern planter is the trim, smooth-haired mule that shows good breeding. The Missouri variety suits the man of the cotton-fields.

Next in importance is the "levee or construction mule," in great demand for railroad and levee building. Camps need big, rugged animals. Style cuts no figure. The mule with large feet is especially desired for drawing heavy loads in loose dirt. He must weigh from twelve to fifteen hundred pounds and be from fifteen to seventeen hands high.

The mule that brings the fancy price is the "advertiser," also called the "wagon mule." Size and breed are both considered here. The "advertisers" are big, well-shaped, perfectly-matched animals, so attractive that men stop along the way to look them over. They advertise their owners as well as themselves. They are now much used for heavy delivery purposes, often worked three abreast, being considered better than horses for this traffic on account of their endurance.

The "mine mule" is a broad, chunky fellow, but not very tall. The average height is fourteen hands. The "pitters," used for hauling ore in underground channels, must not be over twelve and one half hands high, and must have long bodies and short legs. A mine mule may may be any color except white. A white mule gets dirty and looks unkempt. In the mine he is just white enough to frighten his mates, and it is said that one such ghostly animal in a mine will often create a panic.

The "sugar mule" and "rice mule" are used on sugar and rice plantations. The "sugar mule" must be a big, fancy-priced fellow, while the "rice mule" need only be rugged.

The mules used in lumber camps are called "loggers," and they must be strong and rugged. In the lumber camps of Central America this animal is called the "mahogany mule." The types wanted by the government are classified as "wheel mules," "swing mules," "lead mules" and "pack mules." They must be strong and sound, and from four to eight years old. The sizes vary.

The farmers, the growers of the mules, possess only a very small per cent of them. They are in the hands of planters and contractors. Almost any kind of a mule seems to satisfy the farmer, although when he takes a notion to have a fine team, he will outbid the trader for them.

There are sound reasons for this demand for mules. The fool mule, so termed by comic writers, is not such a fool after all. He knows how to take care of himself, and teaming companies who have used them will tell you that a span of mules will outlast two or three spans of horses at hard work. The mule will neither overeat nor overdrink. When very tired, he never drinks or eats until he rests. He is not easily overworked, neither is he nervous, but conserves his energy by taking things quietly. He is immune to many diseases that attack the horse in the Southland. The demand for the mule is a just tribute to his usefulness and an argument in favor of growing him on the farm.

Mule Excellence—Kate and Betsey, Prize-Winners at the 1909 Illinois State Fair

The prices of mules vary some, but there is no farm animal more steady in prices from year to year. "The "cotton mules" are worth from eighty to one hundred and twenty dollars. The "mine mule" brings seventy-five to ninety dollars. The "sugar and rice mules" run from one hundred and twenty-five to one hundred and eighty-five dollars, and the "levee" type, the "loggers" and the "advertisers" range from one hundred and seventy-five to two hundred and fifty dollars. In fact, all large mules when smooth and fat bring over two hundred dollars each. The government mules, of course, vary in price as they vary in size.

A good jack for breeding purposes will bring from three to five hundred dollars, and if he is extra fancy may be worth as much as seven hundred. The owners of jacks claim they make good money out of them. Their only objectionable feature is their voice, which lacks restraint. They are very little trouble to keep, as the owner generally incloses a large lot with strong fences and lets each have his range, running into the stable for feed. The cold winters are hard on jacks, but if a good, warm stall is provided and the animal blanketed during the extreme cold nights and days, he will come through in good shape. Ground grain and plenty of good hay is what he needs for a diet.

I know the mule is much maligned by many who talk and write about him, but there is no animal that is easier to handle if treated kindly. Not long ago I was talking to a successful grower of mules, who said that he would rather break a team of mules than a team of horses, the mules being not nearly so nervous, and steadier goers. Kindness is his policy in dealing with them. There is no doubt that the mule is as susceptible to decent treatment as any other animal, and it is not necessary for a man to be armed with a club when driving a span of mules. I have seen mules, whose dispositions had not been warped by brutal treatment, so dependable that the owner was able to drop the lines at any time and do whatever work he had in hand without fear of their running or raising a disturbance. So I take off my hat to the mule whether he be from Missouri or any other state in the Union, for he is the farmer's friend, his burden-bearer, and a money-maker wherever you put him.

Learn Salesmanship

Some Points and Principles of Profitable Marketing—By W. Milton Kelly

Success on the farm requires talent in getting profitable prices out of buyers, just as much as ability in getting good crops out of the soil. Salesmanship is as much a part of a farmer's business equipment as are the goods he produces. It is oftener a born than an acquired gift; unfortunately it is not always—we might say, not usually—linked with distinguished ability in other lines.

Some of the most practical farmers cannot be classed as good salesmen. Some of the most prominent money-makers connected with agriculture have never gained distinction as practical farmers. Men are comparatively scarce who have achieved the difficult twofold success as farmers and salesmen.

Good salesmanship is an invaluable asset. If one is not so lucky as to be born with the knack of it, one ought to develop it by serious and persistent effort. It is not my purpose to tell farmers how, when and where to dispose of their crops, but rather to show them how very important it is that they should make a close study of the market problem and secure full value for all they produce.

For instance: We grow certain crops of grain and forage on our farms, which we desire to convert into money. Two courses are open to us, the grain elevator and the general market, or the feeding of live stock. If the grain and forage is sold direct, the highest market price is demanded and invariably we are careful to exact the last cent, and in this kind of a transaction we may be characterized as a sharp and shrewd salesman. But very often, when we decide to feed our grain and forage out on our own farm instead of selling it, our sagacity and acumen desert us entirely and we exercise anything but good salesmanship in our selection of the animals that are to convert our crops into new and different products. Why should we deliberately sell our grain and forage, not in the best market or for the best price, but to unimproved and inferior animals, that for the want of quality or adaptability cannot do a good job of manufacturing and consequently can only pay us a very low price for the farm crops they consume?

What process of reasoning leads us to feed a dairy cow when her milk, the article she has manufactured from our forage and grain she has consumed, does not pay for her board? If dairy products are wanted, why not "sell" the feed to such cows as will pay us a good price, and not to the kind we know in advance will never be able to do so.

It is an ever-present bargain that we are driving and we should exercise the same caution to get the last dollar there is in it, as we do when selling our grain and forage at the elevator or in the market.

Another way we often suffer unnecessary loss is in selling our live stock badly finished. No market in the country will pay top prices for poorly-conditioned stock. It is astonishing to observe in the stock-yards of any large city how little care the stock-raisers have taken in this respect. It is the last few dollars spent for extra feed used that pays the largest returns. Half-fed cattle, grass-grown hogs and ram-lambs are not wanted by the trade. This class of live stock sells at a big discount, when the same animals, many possessing good blood, would bring good money if properly fitted for market; but in such uncouth shape they are a loss to the farmers who feed them.

It is the same with all animal products. There is an inexcusable waste of opportunity by many farmers who place inferior milk, butter, cheese and eggs on the market in untidy and uncouth condition. No good salesman thinks of putting his products on the market in unattractive packages. He understands human nature sufficiently well to know that the human eye is the great buyer of his products and that they must be put up in shape to please the fancies of the consuming public.

In another line, the question of shrinkage and waste is of great importance when we hold them in storage rather than sell them at harvest-time. Not only that, but it takes a particularly shrewd market speculator to succeed in the practice. The law of supply and demand does not always hold good. When produce of one kind is out of reach of the consuming public, they are quite sure to buy the next best thing in the market. Two years ago was a good example of this change in consumption. Apples were scarce and reported almost a failure, and growers and buyers held out for an unreasonable price. There was an enormous crop of oranges and other fruit; and the result was that people took to buying these other kinds, until apples were a drug on the market. Then more apples were found than had been dreamed of, and when buyers and growers began to sell, prices went down so low that many men and firms were ruined.

The man who holds his crops beyond a price at which he can clean up a fair profit is taking a risk and a big one. He then becomes a speculator and is getting outside of the legitimate bounds of farming. Farmers had best leave speculating to the board-of-trade fellows. They study the game all the time and many of them imagine they have learned every trick of it, but they haven't, as a record of the bankruptcy courts will show. When a specialist with every known method of getting inside news and information cannot win, how can the plain farmer, who has had no special training, hope to succeed.

Honesty in packing and grading produce is a prime factor in securing the best market price. Farmers in the middle and Eastern states could learn many valuable lessons by a careful study of the methods of marketing farm products and fruit practised by the growers of the Pacific Coast, who coöperate and have all of their products packed and graded by men who are experts in the business and who are employed for no other purpose.

The problem of marketing and handling is not one that can be solved by individual effort alone. One man may put up his produce in good shape and establish a name for first-class goods; but at best his reputation would be only local and known among a fancy, private trade. Whereas, if a large number of growers combine and have their products put up in uniform style and large quantities by experienced men, their goods establish a first-class reputation, and the demand for all products under their brand will be wonderfully widened and profitable prices assured.

We must learn to utilize our inferior products at home and place nothing but the best on the market. This should not mean, as it so often does, a stinted home table and inferior rations in the feed-lot; it simply means that the small potatoes ought to go to the hogs or be boiled into supplementary hen feed and the little gnarly apples, the small or frosted vegetables and all the other under-standard produce should be disposed of to stock or in some housewifely way, rather than be marketed in an attempt to make the good produce carry along the poor.

The man that puts inferior stuff on the market is not exercising good salesmanship; he is actually competing with himself, in two ways, by curtailing consumption through putting inferior produce before the buyers and by increasing the supply through crowding more onto the market than the demand requires.

The cause of unprofitable market conditions is not so often overproduction as under-consumption due to unattractive produce and poor marketing methods.

Farm Notes

Suppressing the Stump Nuisance

THE field I was to plow last spring had scattered about it some twenty-five stumps of all sizes, oak, poplar and walnut, some hollow and others sound. One day I made a calculation of the extra work those stumps would cause, before my corn was laid by, wheat sowed and harvest done the next year. I figured I would have to drive around each stump at least nine times—with the stumps still there to be driven around again in another three years. Furthermore, each stump took up enough ground, including the space that had to be missed in getting around it with the plow, to support twelve hills of corn. Estimating that the twelve hills would bear eighteen good ears, the ground occupied by the twenty-five stumps would raise at least six bushels of corn, to say nothing of fodder.

Once the matter was reduced to figures, the necessity for getting rid of those stumps became plain. Five dollars' worth of dynamite, caps and fuse did the work.

This explosive can be readily purchased at any first-class hardware-store, and is not expensive when its value as a work and time saver is considered. It comes in sticks varying in size from seven to twelve inches long and from one to two and a half inches in diameter, and in strength of from thirty to seventy-five per cent nitroglycerin. For my own use I prefer sticks about one and one fourth inches in diameter and of about forty-per-cent strength, which should cost about fifteen cents each. Caps cost twenty cents a dozen, and fuse one cent a foot. The caps should be what is known as triple or quadruple force, for use in cold weather.

The tools required for placing the blast are an iron bar somewhat thicker than a stick of dynamite, and a heavy hammer. Some prefer an old auger which can be fitted by a blacksmith with a long handle at moderate cost. Besides these, one needs a sharp ax, a shovel and a mattock.

It should be remembered that stumps are obstinate things, and sometimes the explosive does not do all that might be expected, which is especially the case where the stumps are hollow, when as many as four or five shots are required to loosen up the whole thing.

Use the bar and hammer or the auger to get a hole under the stump, directing it so that the dynamite will lie directly under the firmest part of the stump. Next, cut a length of fuse about the depth of the hole. At least a foot of fuse should be used to give one sufficient time to get away a safe distance. Place end of fuse in cap and shove it down on the white explosive found in the cap. Take pains with this, as a premature explosion might result if it is not properly done. Next, after parting the paper folded over the end of the stick, with the small blade of a pocket-knife dig a small hole in the end of the stick of dynamite deep enough to allow the cap to be inserted. Place the fuse and cap in this hole and press the explosive around it, then with a stout piece of twine (binder-twine will do) draw up the paper around the fuse and tie it tightly so that the fuse and cap may not be easily separated in handling.

The blaster is now ready to lower the shot into position. Gently push the stick into place, then press about two inches of dirt over it, after which more dirt can be tamped with considerable force without great danger. It is wise to use a wooden rather than an iron peg to do this tamping, however. I always use clay when handy, but any dirt that can be tamped into a firm mass will answer the purpose. After the opening is well tamped, the shot is ready to be fired. With a pocket-knife split the end of the fuse about half an inch; this will make the fuse ignite easier, as it exposes more of the fine powder it contains. Apply a lighted match quickly while the brimstone of the match is still burning, for the fire of the brimstone is many times hotter than the fire of the wood. Besides, the fire of the brimstone never blows out in a wind; therefore, select matches with large heads. This point of being sure the fuse is actually on fire is of course very important.

Dynamite is in some respects much safer than powder, but when frozen it should be left alone until thawed. This can be safely done by bringing it into a warm room. Never place it in an oven or on the stove.

Dynamite freezes at forty-two degrees Fahrenheit; it can be kept thawed for a while, during use in the field, by putting a small bucket inside a larger one and filling the space between with water at a temperature of about one hundred and twenty-five degrees Fahrenheit. Place the explosive in the smaller bucket and cover tightly, taking care that no water slops on the explosive. An old piece of carpet may be thrown over the whole to help retain heat.

The amount of explosive that should be used at each shot depends on the character and nature of the obstacle and the kind of soil. More must be used in a loose, fine soil than in firm clay. This can be learned by experience alone, however. I would say use plenty to a shot, as too small a charge often does not displace the stump and leaves the ground and surroundings in such shape that the placing of another shot is impossible. If it is desired to use a small charge, a stick may be safely cut when not frozen.

If for some cause a shot fails to explode, do not try to dig it out, but dig down to within four or five inches of it and place another charge as before, and explode. The first charge will generally explode, too. Some blasters place a piece of paper on top of the first four inches of dirt tamped upon the first charge, as a guide to be used in such circumstances.

In using dynamite all that is necessary for safety is to constantly keep in mind the nature of the substance being handled. A little experience and practice in this line is all that is needed by any one of average intelligence to fit him to use dynamite for digging rocky post-holes and for ridding the farm of troublesome rocks and the stump nuisance. F. W. T.

The Road-Drag in December

IT'S the everlasting hammering—the keeping at it—that produces results in any work, and this is especially true of good road-making.

Now, many farmers do effective work with the road-drag during the fall and summer months, but when winter sets in, they seem to think that such operations are suspended until the ground thaws out again in the spring. When the first freeze-up comes, the drag is side-tracked, to be used no more for months, and thereby our roads suffer greatly.

The fact is, the road-drag may be profitably pressed into service many times during the cold weather, but, as in summer, there are only certain periods when its work is most effective. You have noticed that the surface of the ground frequently thaws in winter during the warm part of the day, and begins to freeze up again along in the afternoon or evening. Right then, while the dirt is brittle enough to move, and yet not too wet, is the time to make good use of the drag.

Of course, the drag will not scrape the surface of the ground as deep as in summer, but it will knock off all the bumps, crush the small clods and brush the ruts full of dirt, making almost as great an improvement of the road-bed as at any other season. If, on the contrary, dragging is neglected at this particular time, the effect will be even more damaging than in summer, since the track will be cut up by winter travel, and then frozen in that rough condition, remaining so until another thaw. M. A. COVERDELL.

Wholesome Cellar Air

IT IS well known to be the best plan to keep the cellar perfectly dark after it is stored with the winter supplies. The vegetables and fruits will all keep better if this is done; the action of light causes chemical changes which tend to decay.

But to keep the cellar dark and warm in cold weather, it has to be closed tight. There can be little or no ventilation. Naturally the air becomes stagnant and unwholesome. It may even become a breeding-place for disease.

An open vessel of unslaked lime kept in the cellar will sweeten the atmosphere and keep it wholesome. Better than the lime is calcium carbide for this purpose. This chemical is rich in oxygen, and in decomposing in the moist atmosphere, it absorbs the dampness and liberates a large amount of this purifying element, overcoming the noxious gases that may arise from various sources. Only a little carbide should be used at a time. A half pound is sufficient for the ordinary kitchen cellar, and should be renewed every few weeks. As the carbide in damp air liberates acetylene gas, a larger amount might produce enough gas to be dangerous. The carbide should be set in a pan in the driest part of the cellar, and the reserve supply kept absolutely dry.

M. G. RAMBO.

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DO YOU realize that when you let manure lie out in the barnyard in the sun and rain that you are literally wasting one of your most valuable farm products?

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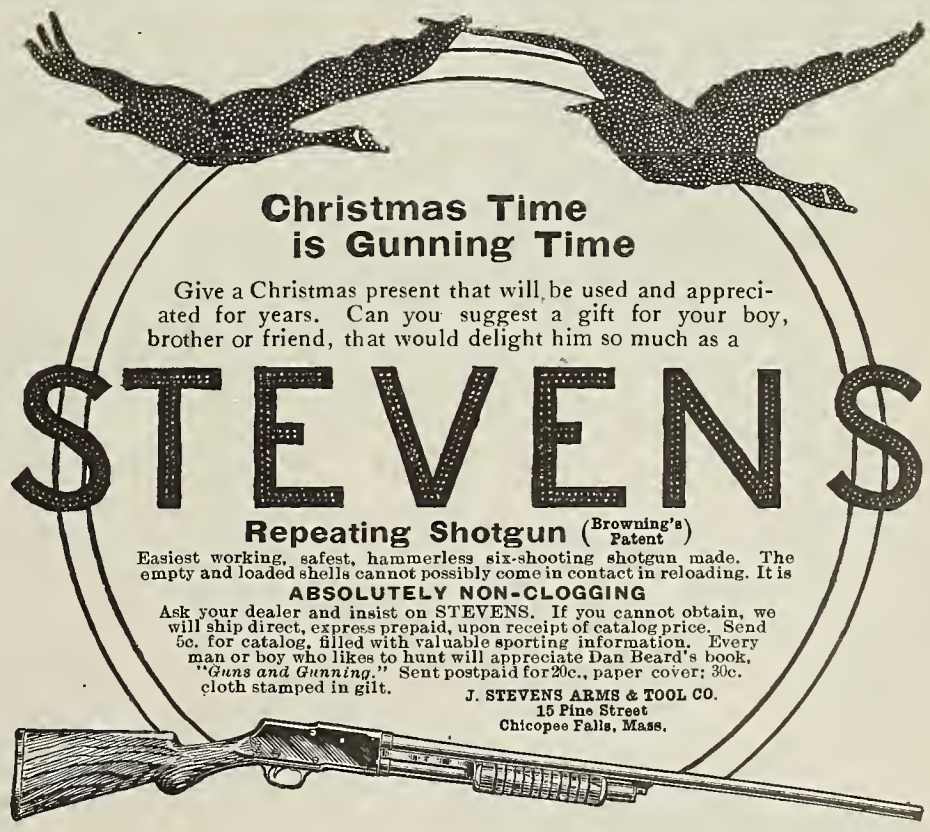

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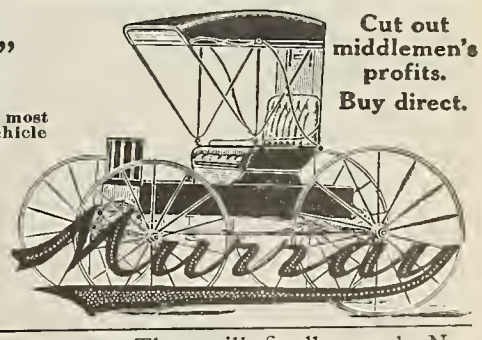

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Practical Farm Notes

Profits of Home Packing

If values would only hold to an average, December would be the profitable season to market stock. But not one year in the last decade has passed but values have been around the low point at that time. This is the result of oversupply. Small farmers have made it an almost invariable rule to have fat stock to sell the last few weeks of the year. With thousands doing the same thing, no wonder this period is looked upon as the height of the packing season. There is a way farmers can get around this glut, not feel the effects of the slump in prices, and still get their stock off the feed. That is by becoming packers themselves.

Very little outlay is required, nearly every farm having the necessary fixtures. For slaughtering, any wagon-shed, farm floor or shelter will answer. Either a rope and pulley, a derrick or the old-fashioned four-armed tree will do for hanging and scraping. Hot water can be provided from the feed-mixing room, the wash-house or the outdoor ring and kettle. A man fairly experienced in butchering, with an assistant, can dress five ordinary hogs in eight or ten hours.

From the time the carcass is hung on the hooks, the farmer must remember that to make a real profit he must not follow the usual farm methods, but, like the big packers, cater to the public taste. First I cut the backbone out of the carcass just where it joins the ribs, then from each half trim off the hams and shoulders. From the sides remove the spareribs and lay them aside to sell immediately. The hams, bacon and shoulders to put down in salt. From the two strips of flitch, backbone and head, come the meat for sausage and the fat for lard. People are glad to give fifteen or twenty cents for a set of pig's feet, while spareribs are a scarce and toothsome dainty easily worth twenty-five to thirty-five cents a side. After trimming the sweet meat off the backbone, the latter when cut into sections sells at five to seven cents a pound. The cheeks and meat from the head make sausage, while the skull boiled is excellent for winter laying chickens. In making sausage, I cut the fat well out so it will not be too greasy, and mix three pounds of beef loin or flank with every twenty-five pounds of pork. Sausage equals about a pound to the pint. If there is too much sausage for immediate sale, place in three or five gallon crocks and run about an inch of melted lard over it. This keeps it sweet all winter if maintained at an even temperature. It need be opened only as enough is sold to empty a crock.

When the trimmings are sold, the cured meats may be held for a better market. The hams and bacon can be smoked and ready by February, but usually sell at a premium later. There is no comparison between the machine-handled products of the big packers and home-cured meats, and when people get a chance at country products they are ready patrons.

Now, as to the returns. A hog weighing at home two hundred pounds, on a basis of a five-cent market, is worth ten dollars. If fat, the hog loses about twenty per cent, and, approximately, the dressing will be: Two hams, thirty pounds; two shoulders, twenty-four pounds; four strips of bacon, twenty-eight pounds; spareribs, head, feet and backbone, thirty-five pounds; leaving about forty-five pounds for sausage and lard. Meats increase about ten per cent in weight in pickle, but lose about the same in smoking, so the selling weight is the same as the dressing weight. The following are conservative prices for a country-dressed hog, based on those of last season: Thirty pounds of ham at fourteen cents, four dollars and twenty cents; twenty-eight pounds of bacon at fifteen cents, four dollars and twenty cents; twenty-four pounds of shoulders at nine cents, two dollars and sixteen cents; forty-five pounds of lard or sausage at twelve and a half cents, five dollars and sixty cents; thirty-five pounds of backbone, spareribs, etc., at seven cents, two dollars and forty-five cents; soap fat, about twenty-five cents; total, eighteen dollars and eighty-six cents. Cost of hog, ten dollars. Profit, eight dollars and eighty-six cents. This gives the farmer good wages for his time. Prices this year are likely to better those figures considerably.

C. A. Umoselle.

Killing-Time Hints

For best quality meat, the animal should have rest, quiet, no food, but plenty of water for about twenty-four hours before killing. If the animal is overheated, its meat will have inferior keeping qualities. If gorged with food, the blood is likely to remain in the skin, and stomach gases are likely to taint the meat.

In slaughter-houses hogs are usually hung by a hind leg and bled to death, though farmers usually prefer to shoot or stun them before sticking, particularly with animals heavy or hard to handle. The animal should not be scalded till well bled, or the carcass will be reddish.

For scalding, a barrel will answer, though a galvanized-iron tank under which a fire may be maintained makes it easier both to keep up an even temperature and to handle the carcass. Most farmers use a temperature of one hundred and eighty degrees or so, which is about what is obtained when boiling water is poured into a cold barrel. The large packers, however, prefer water at a little over one hundred and fifty degrees. When the water is too hot it sets the hair just as it does when too cold; wood-ashes in the water help loosen the scurf, but not the hair. The feet and head, being most difficult to clean, should be scraped first. When the hog is too large for a tank or barrel, it can be wrapped in a thick layer of blankets or sacks, and hot water poured on these.

Some remove the head before gutting, but it can as well be left on until the carcass is cut up. The hog should be opened along the belly line, the knife being held in one hand and the fingers of the other hand inserted to shield the point of the knife from cutting the intestines. The pelvis and breast bone are then split, which can be done with a strong knife if the joint is found. In removing the intestines, care should be taken not to break the gall-bladder, which can be removed by severing the part of the liver to which it is attached. The gut fat should be removed before the intestines become cold. The liver, heart and lungs are removed last, after which the carcass is rinsed with clean water.

It then should hang to cool at least twenty-four hours. It is essential at this stage that the meat be kept from freezing, that flies be kept away from it if any are present and that there be no strong-smelling substance near-by, such as tar, paint or kerosene, as fresh meat takes up such odors readily.

Of the many dry-salting mixtures, one of the most satisfactory is made up of five pounds of salt, two pounds of granulated sugar and two ounces of saltpeter to each one hundred pounds of meat. The meat should be rubbed with a third of this mixture every three days. After the last application the meat should lie a week or ten days, when it is ready to smoke. The box should be protected from rats, but should not be air-tight. It is most convenient to use two boxes, so that when the pieces are taken out of one to be salted, they can be repacked directly into the other.

Brine curing has the advantage in warm weather of avoiding any possibility of insects laying eggs in the meat. A good formula is ten pounds of salt and two ounces of saltpeter dissolved in four gallons of boiling water to each one hundred pounds of meat. The meat should first be packed in the barrel and the brine poured over it, the meat being weighted to keep it beneath the surface. The brine barrel should be clean and free from unpleasant odors. If the brine appears to be spoiling it should be discarded or else thoroughly boiled and all scum removed. The meat should be in the pickle from five to seven weeks and should be given two or three days to drain before smoking. If the brine has been very strong it is best to wash the meat with cold water.

The smoke-house can be any convenient size; even a large packing-box will do if holes are made near the top for the heat to pass out, to avoid overheating the meat. The best results are, however, obtained if the meat is six or seven feet above the fire, with no two pieces in contact, to make sure of uniform smoking. A fire of green hickory or maple wood smothered in sawdust is ideal for smoke-house purposes. Corn-cobs make a good substitute. Resinous wood is likely to give an unpleasant flavor to the meat. Some consider two or three days' continuous smoking sufficient, but as it is very inconvenient to keep a fire going continuously, a better system is to start a new fire every second or third day for two weeks. The meat should not be allowed to freeze between times. Until used, the meat should be kept in tight muslin or paper bags in a dry dark place from which insects are excluded.

In rendering lard, the fat should be cut in small pieces of uniform size to insure their clarifying in about the same time. The kettle should be about three fourths full and a quart of water or hot lard poured in to prevent the lower pieces of fat from burning until the heat has begun to bring out the lard. The kettle should be kept over a moderate fire till the cracklings are brown and dry enough to float, stirring constantly to keep them from burning. When fully extracted, the liquid lard should be poured off and the cracklings put through a lard-press. The lard should be poured into crocks slowly to avoid cracking them and should be stirred while cooling to make it white and smooth.

Sausage is made from the neck pieces, trimmings, etc., run through a meat-grinder. The usual proportions are three pounds of lean to one of fat or, if beef is added, two of lean pork, one of fat pork and one of lean beef. Seasoning is a matter of personal taste, but the following recipe will suit many palates: To each four pounds of sausage add one ounce of fine salt, one half ounce of ground black pepper and one half ounce of leaf sage rubbed fine, mixed with the sausage, which is again run through the cutter to assure thorough mingling. If the sausage is to be stuffed into casings, they may be made by turning the small intestines inside out and scraping in hot water, but casings can usually be bought so cheaply that the job is hardly worth while.

P. C. Grose.

The Agricultural Colleges

A New York subscriber wishes information about American agricultural colleges. They are maintained in every state of the Union, and in Porto Rico and Hawaii. In the following, the college of agriculture is part of the state university: Arizona, Arkansas, California, Florida, Idaho, Illinois, Kentucky, Maine, Minnesota, Missouri, Nebraska, Nevada, Ohio, Tennessee, Vermont, West Virginia, Wisconsin and Wyoming. Delaware and Pennsylvania follow the same arrangement, but call their institutions "Delaware College" and "Pennsylvania State College." The other states maintain separate agricultural schools. In many cases the state college of mechanic arts is associated with the agricultural college in one institution. This is so in Iowa (at Ames) and in Louisiana, Mississippi, New Hampshire, New Mexico, North Carolina, Oklahoma, Rhode Island, South Dakota, Texas, Vermont and Virginia. In Alabama the agricultural college is part of the Polytechnical Institute situated at Auburn. Indiana has turned over its agricultural department to Purdue University. New York's agricultural college is associated with Cornell, and New Jersey's is maintained at New Brunswick, New Jersey, in connection with Rutgers College. Practically all the Southern states now have separate agricultural schools for negroes.

Almost all the above give four-year courses, and the larger institutions provide special short courses lasting from one to fourteen weeks in the winter. Printed information about these is sent out on application to the dean or president of the college. The year-book of the United States Department of Agriculture contains a complete list of the official names and post-office addresses of all these schools.

Farm Maxims

Pluck walks upright where fear dares not creep.

Strength is the child of honest work and right living.

The highway of daily labor is the best road to success.

The rooster does the crowing, but the hen does the laying.

Pleasant words and good cheer are the best things to have in the kitchen.

M. L. Piper.

Book Notice

"Popular Fruit Growing," by Samuel B. Green, Professor of Horticulture in the University of Minnesota.

A thoroughly practical work treating on the factors of successful fruit growing, orchard protection, insects injurious to fruits, diseases injurious to fruits, spraying and spraying apparatus, harvesting and marketing, principles of plant growth, propagation of fruit plants, pome fruits, stone fruits, grapes, small fruits, nuts, etc. Profusely illustrated. Revised September, 1909, contains three hundred pages, five and one half by seven inches, price one dollar. Webb Publishing Co., St. Paul, Minnesota.

From Farms Everywhere

The Worth of Winter Evenings

THE long days of summer furnish not the only profitable hours on the farm. It is true that they offer the opportunities to turn the golden moments into golden harvest and golden coin, and are therefore more prized by many than the dull hours of winter. But the winter days have golden hours also that may be put to very profitable service.

Some regard winter as the time for relaxation, for throwing aside all but the absolutely necessary activities. They reduce their chores to the lowest terms, "house up," and sit close to the fire most of the day and sleep away the long hours of the night. They sink into physical lassitude, experience little or no intellectual stimulation, and when spring opens they find it very difficult to throw off the lethargy of body and mind into which they have fallen. The brisk weather of the cold months, instead of stirring their blood as it should and promoting their energy, has but given them an excuse to stay indoors as much as possible, where they have undergone a continuous depletion of vitality.

Others spend the time which winter affords them as a surcease from physical labor in unprofitable diversions. It goes without saying that a reasonable amount of innocent amusement is wholesome for any one, but one must know when "enough is enough." I have known farmers who spent practically their whole time after their crops were in bin and mow at card-playing, billiards, dances and desultory "visiting." This is not the place to inculcate puritanism or to touch especially on matters of personal ethics; but merely as a business proposition it is safe to say that such farmers are not on the highroad to prosperity. There are much better uses for the wonderful opportunities the long winter evenings offer him.

Winter evenings give the farmer a chance to take stock of his business. The cropping and harvesting seasons have kept him "on the jump," and he has had no time to more than see that things were moving along. Now that the corn is in the crib, the stock comfortably sheltered and the cold winds are whistling forbiddingly outside, he may meditate his affairs and take note of his success or failure. Here is the time when proof is given of the value of the farm account-book, for a study of it will enable him to compare his present status with that of former years, and estimate the results of each branch of his farming.

The winter evenings give him a chance to inform himself and keep his mind up to date in his line of work. He can peruse at leisure the best farm papers and the agricultural bulletins issued by the national government and the colleges, applying to them, of course, the good old rule of Lord Bacon's, "Read not to take for granted, nor yet to dispute, but to weigh and consider." It would pay the farmer each winter to get hold of two or three of the best agricultural text-books and master them. Just as the member of any of the learned professions needs to supply himself with new books continually in order to keep up with the times, so will the farmer fall behind the procession if he fails to keep abreast of the best and most advanced agricultural thought. Many farmers feel that they are not capable of selecting the best books in this line. Some of them have been led to purchase books from canvassers or otherwhere which have proven worthless, and they hesitate to put money into more agricultural works. Should any reader feel incompetent to select such works for himself, let him write to the editor of this paper, who, I am sure, would be glad to put him on the track of the best and latest authorities on any special line he desires to go into more thoroughly.

The farmer should not confine his winter reading to merely such matters as pertain to his work. He will, of course, have his daily paper and keep in touch with the times politically and otherwise. But he ought to read something of general literature. He should cultivate an acquaintance with poetry, fiction, essays and history. These will broaden him inestimably, give him a larger conception of life and make him better contented with the world.

The winter evenings are of great value in the opportunities they afford for the cultivation of the social amenities. Herein the Roosevelt commission on farm-life found the rural communities lacking. Farmers and their families ought to cultivate the society of each other more. One of the bright spots in the traditions of the old days is the cordial hospitality among neighbors. Their social life may not have been brilliant, but it was hearty and therefore satisfying to the soul. Ways and means should be found in each community to arouse the social life. The winter season gives the opportunity to do so. Whoever contrives to bring into being better and livelier social relations in his neighborhood is a real benefactor and is worthier of the gratitude of his neighbors than if he should distribute gold by the handful.

M. G. RAMBO.

A New and Good Fall Pasture

I KEEP at all times a good permanent pasture composed of a mixture of grasses, blue grass being the predominant one, but this is not at all seasons sufficient, and this year the one that I am going to speak of came in very handy.

Really, in the spring I did not start out with the intention of making the pasture that I now have, but rather to add to my forage supply by sowing some sorghum-cane with my pea crop as a variation from the regular meadow-hay, clover-hay and corn-fodder I was feeding. Near the first of last June I sowed on a well-prepared, good soil some cow-peas, intended for hay, and harrowed them in heavily. Just following this heavy harrowing I also sowed nearly one half bushel to the acre of sorghum-cane seed. It came up very well, though, as the weather was rather dry, it did not make the growth at first that it should have; but as sorghum is a great drought resister, it finally began to grow after the first shower and came along well until it made a fine crop of hay. I harvested a little better than two tons to the acre, which with the peas mixed in it makes an excellent forage for all kinds of stock.

Very soon after the sorghum began to make a good growth I noticed the crab-grass beginning to come very thick also, and growing right along with the peas and sorghum-cane. For the type of soil I think I never had a finer crop of hay.

About three days after mowing this hay I put my disk on the land—not the smooth, round disk, but the notched kind—and gave this piece of land a light disking, not cutting deep enough to badly disturb the roots of the peas and cane, but just enough to scratch the ground so as to provide a seed-bed for rye. Following this disking I sowed one half bushel of rye to the acre. This was the first week of last September. My land was in fine condition, and a rain fell just after I was done harrowing in the rye with a light smoothing harrow.

You ought to have seen this field of pea and cane stubble. It was coming up in just a few days. As I stated before, I did not mean to do this in the spring when I sowed the peas; I meant then to plow the land and sow it to wheat this fall, but being a little short of other pasture at the time of cutting the hay crop I decided to grow pasture in this way. Surely it has been a success. Mrs. Rushing claimed she could tell a great difference in the milk flow when the cows were moved from the blue grass onto this pasture about the twentieth of September. I also turned a bunch of shotes on this field to help the cows keep the sorghum-cane down, and fed them just a little corn in addition, and they simply grew fine. This pasture lasted until hard frosts killed the cane.

Sorghum-cane is a forage crop that sprouts out from the stalk wonderfully when there is much moisture, and peas are also heavy growers. This kind of feed with the addition of just a little grain makes mighty good feed. If people fully realized the value of it, it would be growing on more of the old worn fields than it is. Getting a two-ton crop of extra fine hay, and then pasture for six weeks from the same ground, and good pasture, too, is not bad.

Besides, this seems to provide an ideal place for the rye to get a good start. And when the other forage is all pastured down or killed down by frost, there is the rye to continue throughout the winter.

Well, I might go on and pile up the good points, but I believe the best way for any farmer to realize the value of it is to try it for himself. Even if only one or two acres are sowed at first, plan to give it a trial, anyway. Of course this is pretty early to begin figuring on 1910, but if preparations are not made a year in advance you are apt to come into the next year not fully and thoroughly prepared for dry weather and short pastures.

R. B. RUSHING.

The Coming Eucalyptus

THE growing of eucalyptus forests on a commercial basis is an industry that is taking on large proportions in southern California, especially in Riverside and San Diego Counties. It is being found more and more that the dry and cheap lands of the foothills will readily grow the hardier sorts, such as Eucalyptus Kastrata, E. Rudis and E. Tereticarnis. Companies are being organized, large tracts being bought, thousands of seed-beds have already been planted and great preparations are being made to put out a very large acreage the coming winter and spring. Most of these groves will be irrigated when set out, but after that will have no water except the winter rains. The first two years the cultivator is kept going so as to keep down all weeds; after that the limbs almost fill the space between the trees, and the network of small roots near the surface make cultivation impracticable. In five years cutting can begin, and from that time there should be a steady income.

There is no cultivation expense after the second year—no plowing, no irrigating, no pruning, no fertilizing. Cotton may still be king in the South, and corn in the middle West, but in southern California it is the eucalyptus that is coming into dominance. Already the great artificial forests of it are changing the landscape. They will soon supply timber for the finest decorative work, and all other uses where hard wood is needed, not for one cutting, or ten or twenty years, but indefinitely, for generations to come.

California or any other state that can grow the eucalyptus need have no fear of a timber famine. This tree must be reckoned with as a factor in the future of all that region south of the level of Virginia and Missouri where its growth is possible.

Besides being a decorative hard wood, the eucalyptus is famous as a health-giving tree. From its leaves are made valuable medicines. In its natural home, Australia, it is called the "fever-tree," from the preventive effect it exercises, and the Italians are planting it to help them drive the malaria out of the marshy plain of the Roman Campagna. It seems entirely free from insect pests. It is a first-class firewood and its resinous leaves, twigs and bark make the best of kindlings. The wealth that eucalypti will bring to California in a few years is beyond present calculation.

E. I. RICE.

Brush Fallow

MY FATHER worked long and hard on a poor patch, cutting locust bushes and mowing off briers every year, and the piece got poorer each time. One day an old farmer came along and said, "You are making a big mistake. Let the bushes and briers grow for five or ten years, and renew the soil; then grub it out, and you will find it equal to new ground." We tried it, and found that the locust roots and the like pumped fertility into the ground from lower levels, the leaves and mulch preserved moisture; and when it was grubbed it was just the place for corn.

I have potatoes now in just such a locust thicket of a field, where a thick sod had grown, and they look fine. Better a few years of seemingly lazy farming on worn-out fields than to farm them to death or lavish needed money on commercial fertilizers after the humus is gone.

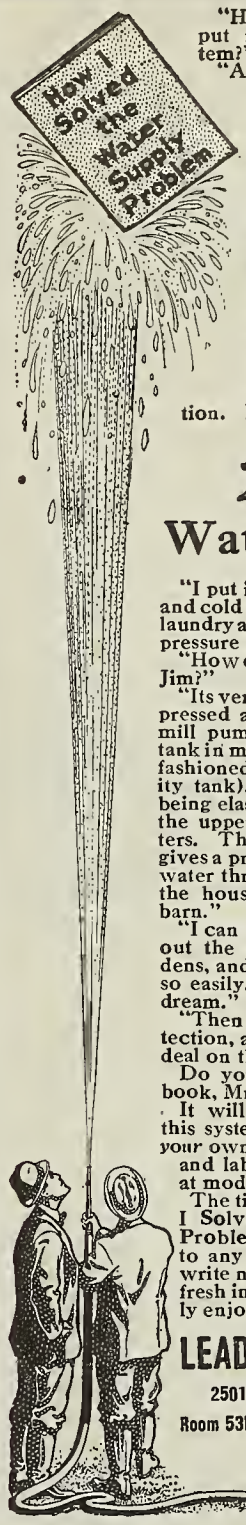
CLIFFORD E. DAVIS.

Sadder Hearts To-Day

PROBABLY all FARM AND FIRESIDE readers have read of the great mine disaster at Cherry, Illinois. That little town stands on the farm I was raised on. Father used to haul coal from LaSalle and Peru over muddy roads that made twenty bushels a great load, never for a moment dreaming that there were millions of tons in the three great veins under the farm. The ill-fated shaft is located on a low ridge of fertile land where I used to hoe corn and watch the sun, like many another farmer boy has done. When father passed away, the old farm was sold for sixty-two dollars an acre, and we thought it a very good price. Our old home stands there yet. I well remember how sad I felt as I passed through the empty rooms for the last time just at sunset, and how loud the lock clicked in the front door, and how sadly and slowly I walked down the path leading to the public road with tears rolling down my cheeks. There are many more sad hearts on the old farm to-day.

FRED GRUNDY.

Water Works FOR THE Country



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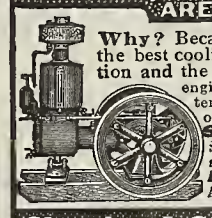

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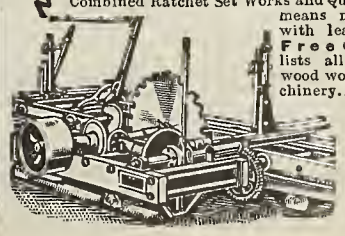

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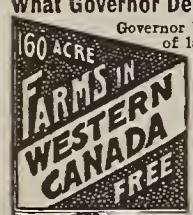

Governor Deneen, of Illinois, owns a section of land in Saskatchewan, Canada. He has said in an interview:

"As an American I am delighted to see the remarkable progress of Western Canada. Our people are flocking across the boundary in thousands, and I have not yet met one who admitted he had made a mistake. They are all doing well. There is scarcely a community in the Middle or Western States that has not a representative in Manitoba, Saskatchewan or Alberta."

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Fruit Growing---By Samuel B. Green

Strawberry-Plants Without Runners

A Wisconsin correspondent states that a nursery agent in his vicinity has been selling a variety of strawberry called Lovett's Early. The agent alleges it has been treated so that the plants will not spread, and he claims great advantage from this treatment.

There is a variety of strawberry known as Lovett's Early, and it is a good market sort that has been known for many years. It makes a fairly good growth of runners each season, and has been recommended for general planting in Wisconsin and elsewhere. I do not think it practicable to treat this plant in any way to prevent its having runners other than by cutting them off the same as can be done to any other strawberry.

I do not know what would be gained by having a variety without runners. Of course, some varieties seem to make so many runners that they do not produce much fruit. A variety known as Park Earl, which was sent out a number of years ago by T. V. Munson, produced very few runners, but made a large stool. It did, however, produce enough runners to make plants for propagating purposes.

Apple Roots for Grafting

The apple is generally propagated by root grafting or pieces of seedling roots grown for this special purpose; but the small roots of large apple-trees may be dug up and used in the same way, though, on the whole, seedling roots are preferable. Pieces from three sixteenths to half an inch in diameter may be grafted, and nearly as good results secured as from the seeding roots. We like to have the pieces of roots at least three inches long, as that is about as short as they can be worked to advantage, but even shorter pieces than this are often used in general propagation.

Wood of Raspberries Not Ripe

If the wood of raspberry-plants is not ripe on the approach of winter, I do not think it will ripen any better when exposed to the air than if laid down, and as growth has ceased, the sooner it can be laid down the better. There will be much more winter killing on the wood if it has not ripened up than if it had been well ripened, and the same wood will winter kill more if left exposed than if covered up. Some conditions that tend to prevent raspberry wood from ripening up are an overrich soil, autumn rains and late cultivation which keeps them growing late.

Shade-Tree in Stony Land

An Ohio correspondent asks, "what trees will grow on stony ground?" As a matter of fact, stones in the land do not affect its value for tree-planting. It all depends upon the kind of land. If the land is an open clay soil, then almost any of the native trees suitable to the region will grow on it—elm, hackberry, catalpa, black walnut, etc., for Ohio. A good way to determine what shade-trees grow best on the land in question would be to note what grow best on your neighbor's land or on similar land elsewhere. The chances are that the hardy catalpa would grow well on this soil, as it has a wide adaptability.

Case-Bearer

L. H. S., New Hampshire—You state that the tiny insects which you inclosed spin down to the ground, and inside of the seed-like covering is a bug that sticks its head out like a turtle. It is probable that this is one of the small case-bearers, which have a protective covering that they carry around with them all the time. They feed on the foliage. The best way of preventing injuries by them is to spray with Paris green and water or other poison, the same as recommended for biting-insects generally.

Apple-Trees Not Bearing

There are several possible causes for failure of apple-trees to bear satisfactorily. The variety may not be suitable to the locality, in which case the appearance of the tree, or a spareness of flowering, generally shows the difficulty. If the flowering is profuse, yet the yield small, it may be that the flowers of this variety need the pollen of some other kind nearby or else they are sterile. It may also be that your trees are growing in some land "pocket" where the flowers are frosted almost every year. I do not think spraying will do any good if the fruit does not set, but falls soon after the flowers have fallen. If the fruit sets well, but does not develop later, the cause is probably some insect enemy vulnerable to spraying.

White Pine in North Dakota

White pine can be made to grow in North Dakota on good soil, provided it is protected from the wind, but where exposed to the wind it is almost sure to fail. I do not recommend it for that region, nor do I think it is likely to be a success there on any considerable scale. What is known as "white wood" is a good substitute for pine for a great variety of purposes, but costs fully as much. Good basswood is also an excellent substitute for pine for inside finishing, where it is to be covered with paint and protected from the weather. The common white wood of the Northern States is tulip poplar, which grows chiefly in the Ohio Valley and South. Basswood is also sometimes known as white wood.

Using Hard-Wood Sawdust

H. R., Hite, Pennsylvania—Hard-wood sawdust can be used to advantage in many garden operations. If, however, it is applied in large quantities to the soil, it causes a sourness that is objectionable. If decayed, it can be applied in small quantities directly to the soil; but I think the best way to use it is behind the cattle in small quantities to take up the moisture. Then it will work directly into the manure and soon decay. I think it would be a good plan to scatter a little of it through manure-piles and to put it about the barn-yards or any place where cattle stand. It may also be used successfully as a mulch about currant-bushes, raspberry bushes, etc., and is not injurious when thus applied.

Orange-Tree for the House

H. M. F., Dalton, Ohio—It is customary to bud ordinary orange-trees in order to have them set fruit, but the most satisfactory orange for growing in dwellings or greenhouses is the Otaheite, which produces a large amount of fruit and foliage on compact little plants, and I think you would get more satisfaction from a small one of these than from budding any of the ordinary orange seedlings, as the latter are too large and do not produce nearly as much fruit, although it is of better quality than the Otaheite. If you wish your seedling budded, I would suggest that you take it to some greenhouse, if there is one in your vicinity, where it is more than likely you would find some one who is acquainted with this kind of work.

Injury to Soft Maple

J. B., Dundee, Michigan—You state that your large soft-maple tree has had the bark bruised off one side by being struck with a wagon, and that as a result of it the leaves fall earlier on that side of the tree than on the other side. I think your covering the wound with tar and wrapping with old carpet is probably sufficient to prevent decay from going into the wood. However, I generally prefer white lead to tar. Wood-tar is much safer to use than coal-tar, as the latter sometimes kills the bark of trees. I doubt if it is practicable to do anything more to save your tree than what you state has been done. The chances are that it will recover and the wound grow over if kept protected.

Home Grapes

Never in my recollection has there been a finer fall to bring grapes to full maturity, although they were later than usual to begin with. It takes a certain amount of heat to convert the starch in the berry to sugar. The present season gave full measure of it, and consequently our grapes were never sweeter.

We once had nearly one hundred different varieties in our little vineyard, planted twenty years ago for testing. The soil is clay loam underlaid with heavier clay and quicksand—such soil as gives fruit crops without demanding manure, and none has ever been applied, except one or two light dressings of superphosphate and muriate of potash.

Then came a couple of winters with particularly trying conditions. Not that the mercury went much lower than the average; but, whatever the cause, every variety not perfectly hardy succumbed.

Hardiness of Varieties

The two test winters injured and weakened the great majority of nearly one hundred varieties. The Green Mountain, Concord, Isabella, Woodruff Red, Worden, Victoria and a few others came out little the worse for wear; but even the Niagara, although this (Niagara) county is its own home, suffered considerably. This experience with such a number of varieties seems to lead to the conclusion that Green Mountain, Concord, Worden, Isabella, Woodruff Red, Victoria, etc., are among our hardiest sorts. Most dependable of all I would consider the three first mentioned. Green Mountain is not excessively productive, and the bunches are not large. It has never failed us, however, and is about our earliest sort and of fair quality—a white, or rather green grape. Worden was this year decidedly earlier than Concord which it otherwise strongly resembles. It is productive, and ripening up perfectly, was remarkably sweet and good, excelling the Concord. In some years it seemed to be more subject to black rot than the latter, which has seldom suffered.

No one in this latitude having an owned house, even on a small village lot, need go without good grapes. They are easily grown in small space. You can have a row along a fence or you can plant a few vines and train them on the sunny side of some outbuilding. Take a little pains to plant them well, nurse them a couple of years, and beginning with the third year you will have your fill of grapes. They will bear even under neglect or in spite of unskilled management. Don't forget the Green Mountain, but depend mainly on Concord. Have a Worden, too, and perhaps a Niagara. For some localities, Delaware may be preferable. Here it has never done much, and proved to be particularly subject to downy mildew. Poor foliage makes flavorless grapes. It checks the conversion of starch into sugar.

But have some grapes on the place, anyway. If nothing else, have a grape-arbor! Why do without this blessing when you can have it so easily, and when the whole family wants grapes and will enjoy them?

A Grape Without a Name

Rather remarkable is my this year's experience with a grape not mentioned in the foregoing, but spoken of in these columns on earlier occasions, a grape of the European (vinifera) class. I can find no record of having purchased or planted a grape of this sort, and I have not been able to find where we got it or what its true name is. But it has given me the same delicious fruit that I remember having eaten and hugely enjoyed in the vineyards of northern Germany. The vine is only a medium grower, leaf thin, proving the vinifera type, and quite subject to prevailing leaf diseases. This year the leaf remained fairly healthy without spraying and the berries were almost free from rot. Clusters are large, not much given to being shouldered; berries somewhat closely set, of medium size, black, and pure and most delicious in quality. It is the earliest grape in the patch and produces a fair crop for the size of the plant. In most seasons I have sprayed with Bordeaux mixture, and occasionally bagged the clusters. As long as the fruit lasted, this year as annually for the past fifteen years, whenever I wanted a really good and enjoyable cluster of grapes, I would almost mechanically, instinctively work my way toward this grape without a name. It is so good, indeed, that I am willing to take a little extra pains with it in order to have the fruit to eat.

In Bailey's Cyclopedia of American Horticulture I find the following sentence: "Vinifera types will always be special grapes in the East, adapted only to particular conditions . . . ." I believe we can easily provide these conditions, such as planting under a coping, training to the south side of a building, spraying and bagging, and I am going to plant more of these grapes, propagating by layering. Some of our readers who have had the chance to eat these grapes in German vineyards, in September or October, will admit they are worth while.

T. Greiner.

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Gardening---By T. Greiner

Celery for Young and Old Gardeners

Any smart youngster can raise celery, and good celery at that. Celery has seldom been thought of as a crop for the farm boy or for pocket-money for women and children, but rather as a crop for business, or at least for the more skilled home grower. It is no particular trick, however, to raise it, and to raise just as good and well-blanched stalks as our boy (in the picture) shows as a product of his efforts. Neither does it require any great amount of labor and effort to raise it, especially not with hoe and spade in the way we used to grow celery years ago.

The first thing needful, of course is to secure a supply of good plants in proper season. This part of the task perhaps calls for more skill than the balance, but even the boy may learn it easily if he takes to gardening naturally or readily. I have explained my way repeatedly, stating that I invariably start the plants under glass in flats, and transplant them, in sections, to the nursery row outdoors as soon as weather and soil conditions permit in spring. If no plants are at hand, however, when wanted, good ones can be bought at a small price, say two dollars or less a thousand from professional plant-growers, many of whom advertise in the agricultural papers during the planting-season. There is one difficulty, however. Some of us are quite particular about what varieties we plant while to the average grower a celery-plant is just a celery-plant and nothing more. To me, the question of variety is most important, and to make sure of getting what I want, I must raise my own plants. There is where the boy had the advantage.

There are two types of celery, the self-blanching (so called) and the standard late, or non-self-blanching, sorts. Among the former, we have especially two forms, the White Plume and its sub-variety Pink Plume, and Golden Self-Blanching. White Plume was for years the leading market sort. It is shown in the illustration on top of the barrel to the right —two "bunches" carelessly tied together for local market, also a single "stalk," or plant, and some loose outer leaves, or leaf stalk, showing them to be thin and narrow at the base. In quality this celery is no more than just "fair" or passable; the blanching is done by means of boards.

Golden Self-Blanching is a far better celery, and now taking the lead in the market. None of it is shown in the picture. It is quite dwarf in habit of growth, but the ribs or leaf stalks are wide and thick at the base, and the bunches when well blanched (usually by means of boards) are very attractive in their golden yellowish color and close, compact growth. Quality is excellent. Golden Self-Blanching, however, must have the very best, very richest celery soil, otherwise we will not get the size needed for market.

In the center of the celery display may be seen two single plants, one being a Giant Pascal and the other a Chicago Giant—giant plants surely. The Giant Pascal is one of our best winter sorts, but does not blanch very readily. For fall use, it needs high banking with earth; but when stored for winter in trenches, celery-pits, cellars, etc., it comes out as nice and of as good quality as one could wish. Chicago Giant is evidently a cross between White Plume and Giant Pascal. It has the self-blanching habit of the former, and the general habit of growth and wide and thick leaf stalks of the latter. In quality, I consider it the equal of the Golden Self-Blanching. Three bunches of Chicago Giant are shown at the left of the center, also a few loose leaf stalks, giving some idea of their width at the base, and cross section of one plant (not one of the largest) near the base.

The Young Gardener and Some of His Results

Cabbage-Lice

A North Carolina reader wants to know what to do to clear his cabbages from lice. These gray plant-lice have been simply "awful" this year, and this over a wide stretch of territory. They nearly destroyed my kale, my late cabbages and turnips.

On kale and turnips it is a comparatively easy task to do away with the lice. Free applications of tobacco-dust, or spraying with hot soap-suds, tobacco-tea, whale-oil soap or kerosene emulsion, will surely do it, and do it quickly. But these lice find so many hiding-places on the under side of leaves, in the heart of cabbages, etc., that it is difficult to reach or dislodge them all. Use the spray with as much force as possible, and not only on top, but also on the under side of the leaves. The nozzle in a properly-adjusted sprayer should be set at an angle to permit this. The weather conditions of the past season were especially favorable to the multiplication and spread of leaf-lice, which may not happen again very soon.

Poor Germination of Seeds

A reader asks me what I think is the reason his seeds came up so poorly this year. I do not think it was the seed's fault, nor perhaps the sower's altogether. For instance, this fall, toward the end of the long dry spell, I sowed a patch of spinach. The ground was well prepared, and the soil, although rather dry away down, seemed moist enough on top at time of sowing to sprout the seeds. Only a few scattering plants came up, however, until weeks afterward, when we had plenty of rain. Then all at once, after I had given up the patch as a failure, the plants came up the thickly, and about every seed must have germinated. The soil was too dry, although it appeared a little moist on top. And this is only a repetition of what happened all along in the earlier part of the summer and in mid-season. The seeds remained dormant in the ground for weeks after being planted, simply for lack of moisture, and started into growth only after they were revived by a few light rains.

Don't blame the seeds, nor the seedsman. With melons, cucumbers, squashes, etc., a wash-tub full of washing suds on wash-days, during the planting-season, may help us out considerably. Empty a dipperful upon each hill, let it soak in well, then a while afterward stir up the soil in the hill with the hoe and plant the seed, firming the soil well over the seeds. This will usually do the business and the plants once started will grow well enough even in hot dry weather.

Lemon Cucumbers

I have grown them, these garden lemons, vegetable oranges, lemon cucumbers or whatever they are called, and have not found any particular use for them. I have seen them here and there in other people's gardens, often paraded as a novelty. In one or more seasons I have had them without knowingly sowing the seed. It was cucumber-seed saved by myself from a patch in which cucumbers and melons grew closely together. Our scientific fellows, I believe, claim that cucumbers and melons will not mix any more than ordinary pumpkins and squashes. Even Doctor Bailey stated that he could not make a hybrid of squash and pumpkin. And yet from seeds taken from a cucumber I obtained garden lemons showing unmistakable evidences of relationship to both cucumber and melon, and from squash-seeds I obtained in one or two instances a vegetable that resembled a pumpkin more than a squash.

Possibly the lemon cucumber, or orange cucumber, may, in the hands of a skilful cook, be turned into a delicious preserve or something of the sort. But we failed in our attempts, and I have given up raising this wonderful vegetable which is too insipid for a melon, and too much lacking in sprightliness and crispness for a cucumber.

Celery Blight

Not a sign of blight or rust on my celery this year or last. The present season, with its long dry spell in mid-summer, seemed particularly favorable to the development of blight. But the celery did well just the same. I have to plant on most available spots, often close to where we had celery the year before. I have had blight, some years ago, on the same spot where I raised good, healthy celery this year. My idea is that the spores of the disease are carried over on the seed, and if we sow clean seed, there is not much chance for our plants being stricken with the disease unless it spreads from an infested patch close by. My remedy has always been the simple solution of copper sulphate applied with a knapsack sprayer. I use just enough copper sulphate to color the water a light blue, and make several thorough applications at intervals of a few days, the first after the affected outer leaves have been trimmed off. In my case this treatment has seemed to check the blight.

Exterminating Horse-Radish

Horse-radish is often very persistent. Our Iowa reader who is puzzled how to get rid of it can do little better than dig it out and keep digging it out, perhaps then sowing a crop that will smother out what is left of it—such a crop as clover, crimson clover, turnips, peas, vetch, etc.

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About Practical Poultry-Raising

Ducks in Winter

PROVIDE good, comfortable houses for the ducks. They cannot endure cold or dampness without suffering. If exposed to either for any length of time, they will show cold in the head. This often becomes chronic and turns to roup.

Ducks should not be housed with other fowls for several reasons. To begin with, they require different food. Their habits are different, and they cannot "hold their own" with other fowls. A very small chicken can drive a duck away from the feed, and even when not disturbed, it is impossible for ducks to get their full share when fed with chickens, because they eat rather slowly in spite of their reputation for "shoveling" the feed. And, besides, they are kept in a constant state of confusion. Ducks are timid creatures, and the quieter they are kept, the better.

However, it is not necessary to keep ducks housed, except at night and during the coldest days. They need exercise, but their feet are very tender, and when traveling over the frozen ground they hobble along as if their backs were broken.

Duck-houses need not be expensive. If only a small flock is being kept to furnish eggs for hatching, a comfortable house can be built at small cost, or perhaps there is some building on the place that could be fitted up to answer the purpose. If the house has a good roof, the rest is easy. If the roof leaks and the walls are not close, a good plan is to cover the outside of the house, roof and all, with tarred paper. It is inexpensive and lasts several years if given a coat of paint or pitch.

Troughs should be fitted with racks if convenient, but this is not necessary where only a few ducks are kept.

No roosts are required, as ducks sleep on the floor or ground. Floors should be kept covered with clean straw or litter, frequently renewed. In cold weather give plenty of bedding, no matter if it is a foot deep. They will soon trample it down. There are sometimes a few frozen eggs to be found if bedding is scarce.

Ducks always lay their eggs on the floor or ground. If well cared for, they will begin laying some time in the winter months. The Indian Runner begins laying several weeks before the Pekin. The latter usually begins in February or March and continues laying until July.

When only ordinary care is given, ducks of all varieties begin laying in the spring, although it is no more difficult to produce duck-eggs in winter, providing conditions are favorable, than it is to produce hen-eggs. A good deal depends upon the breed, and much more upon the feed and general care. However, the object of this article is not to instruct readers in the art of getting winter eggs from ducks, but simply to give a few hints that will help duck-raisers to prepare them for egg-producing when the hatching-season arrives. For, unless the ducks are well cared for during the winter, their eggs will not hatch well in the spring.

Don't feed much whole grain. If corn must be fed occasionally, it should be soaked for several hours before feeding. Cooked vegetables mixed with bran and corn-meal is better. Equal parts of bran, corn-meal and oat-meal or boiled oats, with some green stuff added, is always relished. Chopped cabbage, onions, turnips, beets or apples will be found very convenient when other "greens" are scarce. Don't add grit to the feed, but keep it within reach. Water should be changed several times a day. In severe cold weather the chill should be removed. The feed mixture should never be gummy or sloppy or the ducks will not eat it. All mixtures intended for ducks should be just moist enough to cling together, without being gummy. Crumbly feed is always wasted. Add a little salt twice a week. Pekin ducks should be fed oftener than others. They are large feeders. In fact, they will consume more feed than any other domestic fowl.

A Pekin duck must be generously fed if she is expected to lay many eggs. Keep a box of sand and one of charcoal within reach of the ducks. Provide coarse grit, also.. When the laying-season arrives add a little raw cut bone or some meat scraps to the feed at least twice a week. ANNA WADE GALLIGHER.

Cause and Cure of Feather-Eating

THIS damaging habit is usually confined to fowls in small runs, but sometimes occurs among those on larger range. I have seen fowls, quite naked of feathers, that in summer peck one another until blood runs. I find one breed as likely as another to contract this habit.

The cause is generally insects and vermin. The fowls peck at themselves, and in doing this pull their feathers out, often swallowing them. In a few days the new pin-feathers appear, which are moist with more or less glutinous matter. The feather-eaters observe and pluck them, thus keeping quite bare of feathers.

The first thing to be done is to put the feather-eaters in a place by themselves, for if left with other fowls, they will teach them the habit. They can be readily picked out by watching for them, out of sight, when the sun is shining and the fowls are cleaning themselves. Often if a feather-eater is shut in a coop for two weeks and then put back in the pen, it will not go back to the habit; but if it does, it is well to shut it in a run with another bird that is well covered with carbolated vaseline or any such thing applied to the parts the hen in question usually attacks. If this does not take effect, it saves time and trouble to kill the guilty hen unless a very good bird; but if she is, one should then cut or file away the edges of both mandibles, so that for a little more than an eighth of an inch back they do not close. In this way the bird can eat readily, but cannot hold a feather.

Often lack of exercise and green food will cause feather-eating. It is a good plan, also, to feed sulphur in the mash when one sees the hens starting. In a very confined run, one should give the birds all the occupation possible, scratching, and so forth; it is also a good idea to have a round perch a few feet long in the outside runs, as it makes a change for the birds to get on it.

I have never known of a male bird contracting this habit.

A. E. VANDERVORT.

In Winter Weather

THE season has gone by when poultry can get much to eat out on the farm. You must furnish them what they need.

To do well and lay right along in cold weather hens must have nearly the kind of food they find themselves in summer out in the fields. Have you ever watched a hen as she went around the farm in warm weather? That is a good way to learn what she likes best to eat. Now she stops to take a bite of green grass; hens like grass as well as any farm creature. Now she chases a grasshopper or some bug; that is the way she gets her meat scraps. Now she picks a deep hole in an apple; here she shows her taste for fruit. In another place she picks up a bit of gravel. A little farther along she finds some kind of seed; almost anything in this line is acceptable—corn, wheat, oats or barley. And to top off with, she drinks her fill of the purest water she can find. That is the hen's bill of fare when she can get the different things. To win, we need to provide a little of all these things every day.

Ever eat snow when you were thirsty? Not very satisfying, was it? Don't make the hens get their drink that way.

Hens will drink roily, dirty water? Yes. So will you, rather than be choked to death; but, honestly now, you don't like it. Neither does the hen. It is a case of necessity, just as it would be with you. Furnish good, pure water, and do it two or three times a day.

It doesn't make much difference how many hens you have on your farm, provided you do not try to keep too many in one place. Divide your houses up into pens, and feed them and keep them in separate colonies of not more than twenty-five or thirty.

Big, heavy, slow-going hens ought not to be kept in the same pen with the quick, nervous ones. The hens that get around lively will eat the others out of house and home.

Take all the roosters out of the laying pens. Their room is better than their company.

The little chicks, if you happen to have any, which you ought not to have this time of the year, will "catch their death of cold" if you don't keep them well housed. E. L. VINCENT.

"Cackle Hay"

THE above is my name for lawn cuttings. I have for many years been saving the short green grass and putting it up in sacks after thorough drying as winter feed for hens. I run it through the feed-cutter and mix with hominy-meal and middlings, say half a peck of each and the same quantity of cuttings, and feed warm. The hens go for it ravenously—and don't they lay! That's why I call it cackle hay. W. THAYER.

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Poultry Facts

YOU can't shut a laying hen in a closed coop; limit your responsibility to a few handfuls of grain a day, and continue (for long) to collect eggs. You can't leave growing chicks to dew, and wet and sour feed and count them *all* next winter. But you *can*—by practicing **"The Dr. Hess Idea"** of poultry feeding—keep the hen laying and the chick growing, even under most discouraging conditions. A little of

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According to accepted standards, a cow weighing one thousand pounds will require about one pound of protein a day in a maintenance ration, and one producing from thirty to forty pounds of milk a day will require from one and one fourth to one and three fourths pounds additional, or a total of from two and one fourth to two and three fourths pounds a day. Our dairy business, especially in the East, has been developed largely upon a basis of cheap protein foods; and as a result many dairymen have been buying and feeding too many protein concentrates, for the purpose of stimulating a large flow of milk.

Some dairymen are feeding each cow daily from five to ten pounds of gluten and other highly-concentrated protein foods; but it is my opinion that they are making a mistake and cannot obtain profitable results in the pail or by added fertility in the manure heap.

Our farm crops, clover and timothy hay, corn and other fodder and forage, with oats, barley, wheat-bran and corn for concentrates and a little of the more highly-concentrated protein foods form an ideal combination to promote health and vitality. We may get a little less milk, but our cows will breed more regularly and we will have better calves. Usually the highly-concentrated protein foods are less healthful than home-grown foods. The time is coming when dairymen will recognize the fact that a pound of protein in one food is not always of equal value with a pound from some other source. Various processes are used in the manufacture of these commercial by-product foods, that necessarily affect their feeding value, and it will prove a great advantage to every feeder to make as careful a study of the processes used in their manufacture as he does of their chemical analysis.

The highly-developed special-purpose dairy cow cannot be profitably fed without grain food, but the nearer we can come to growing all of our cattle foods on our own farms the better. A study of the protein in corn-meal, barley-meal and ground oats shows us that a little cotton-seed meal, gluten and linseed meal can profitably be used to increase the protein content of the ration. The addition of these concentrates not only increases the value of the ration by so much protein, but enables the cow to make a more economical use of the barley-meal, ground oats and corn-meal. For this reason the dairyman who has an abundance of home-grown foods at hand will many times find it profitable to invest in some of these by-product foods if they can be had at a reasonable price. They add to the value of the grain ration just as clover, alfalfa and other proteinaceous forage crops increase the value of ensilage and timothy-hay, because they contain more protcin.

The low percentage of protein and the high percentage of water in corn-ensilage make it desirable to feed with it an abundance of good clover-hay, which makes a better ration than either alone, although it is far from perfect. When feeding ensilage and clover-hay a liberal admixture of home-grown grain foods should be added to balance the ration with protein. We should make a constant effort to produce various kinds of proteinaceous forage and fodder crops.

This raises the question of rotation of crops best adapted to the feeding of the dairy cow, and I say unhesitatingly that a ration of corn, oats and peas, and clover—a three-year rotation—will prove the most efficient in a Northern latitude. By this rotation the dairyman can manage to buy but little grain food and that of the highly-concentrated sort, worth almost as much for fertilizer as for food.

Many farmers who grow clover fail to derive its maximum value, by not cutting the crop at a time when it contains the greatest proportion of digestible nutrients. Clover contains the most feeding value when not more than one half of it is in blossom. Of course it is more difficult to cure it at this time, but it makes a better feed than at any other time.

By practising a short rotation of clover and oats and peas, a ton of oats and peas can be raised on every acre in grain. This ton, with perhaps a small addition of the more concentrated protein food, is sufficient grain for one cow for a year, and if it is properly supplemented with corn-ensilage and early-cut clover-hay, it will keep her producing profitably.

Corn-ensilage is the cheapest food for the dairy cow. Every experienced feeder knows that succulence adds value to the ration and that there is no crop that will afford this as cheaply as ensilage from well-matured corn.

The advantage of a crop of mangels or rutabagos is not so much in their nutritive value as in the fact that they furnish succulence, when the cows are being maintained on a ration of dry foods. While root crops are very generally used in England and Germany and are held in high esteem as an appetizer and conditioner, their use in this country is quite limited. One reason root crops have not become as popular as their feeding value would justify is no doubt due to the cost of labor required to grow and harvest them. The use of soiling crops in summer and ensilage in winter is, however, well calculated to supply the needed succulence to the dairy cows' ration.

An important factor in dairy feeding is the supply of water. During the summer with plenty of green forage and pasture grass, and in the winter with roots and ensilage, the consumption of water is relatively less than when the cows are on dry feed; but cows must always have pure fresh water if they are to produce pure milk. Unless the pasture and yards are watered by a brook or spring the water should be procured from a well kept clean and not subject to surface drainage, free from foreign matter or taints of any kind. W. Milton Kelly.

Care of Horses' Feet

As the hoof is continually growing, the amount of wear from the bottom must be equal to the growth from the top. Otherwise, the symmetry of the foot will not be maintained. Anything that disturbs this equilibrium between growth and wear injures the feet.

When the wear is greater than the growth, as is the case as soon as the horse is put to road work, the hoofs become short, the feet tender, and shoes have to solve the difficulty.

If the growth of the hoof is greater than the wear, it soon becomes necessary to trim it back. This is often the case with young colts or unused horses running on pasture. Neglect this and the elongated hoof throws the ligaments and tendons out of their proper places, seriously injuring the animal. If hoofs are long and tough, a chisel and hammer or even a saw may be resorted to to trim them.

Moisture is necessary to the preservation of the hoof. When dry it becomes brittle, breaks and cracks. If the horses run out into the dews at night, this moisture will be supplied, but when they are stabled over night it cannot be supplied unless the stalls are muddy, and muddy stalls may be good for a horse's feet but not for his health. Some farmers cause their horses to stand in water while they eat their noon meal, but this too is questionable. Some horsemen grease their horses' hoofs with linseed-oil once or twice a week to keep them soft and pliable, and this is the best plan I know. W. D. Neale.

In the Dairy Barn

Poor cows make the farmer poor, and he is wise to dispose of every one of them. But when he gets possession of one that pays a good profit on the cost of her keep, she is better than money in the bank.

Do not do any dusty work in the barn just before milking. It is hard enough at best to have the milk clean. Always milk before putting the hay in the mangers.

Put a little salt into the cows' mashed feed or chop. It enhances the flow of the saliva while the animal is taking her feed, which is a good thing for an animal as well as for a human being. It is not a good thing to force a cow to eat more salt than she needs, so only a little should be given in the feed, and then free access to rock salt will permit her to have all she wants.

It isn't a bad idea to learn to milk from both sides of the cow and to teach the cows to allow it. Sometimes a sore teat or udder may make it almost necessary to do so. Sometimes the udder may be so large or swollen that it is very difficult to reach all the teats from one side. In many dairies the stalls are so arranged that a milker can milk two cows without leaving his stool by simply turning half-way around as soon as he is through with the first one.

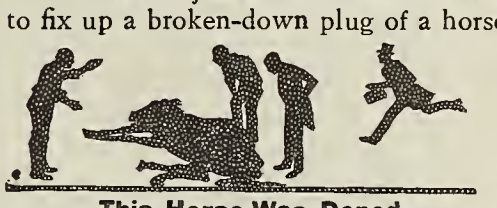
M. G. Rambo.

Look Out for "Hoss" Traders

And look into the horse's mouth if you are going to trade. Of course you would do that. But even though his teeth say he is 7 years old, he may actually be 17 and Bishoped. Look out for that!

He may be a cribber, but again you might not be able to tell it from his teeth. Of course, too, you would look at the horse's legs. Could you detect a hidden spavin? Lameness, too, can be temporarily "cured." Ever notice the smell of turpentine or gasoline about a horse. Did that mean anything to you?

These are just a few of the tricks that gyps and horse-traders use to fix up a broken-down plug of a horse, and there are lots more.



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He showed fine action at the sale and the honest buyer thought he had a bargain—on the way home the horse toppled over and $150 of good, hard money was lost.

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Hiding a Spavin
This trick enables a $35.00 spavined horse to be sold for $150.00. Other outrageous tricks are Plugging a Roarer and Bishoping, while turpentine, gasoline, flaxseed and even butter have been effectively used for dope.

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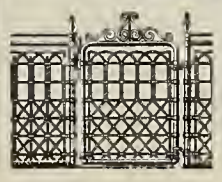

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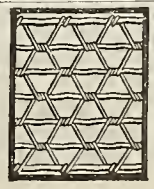

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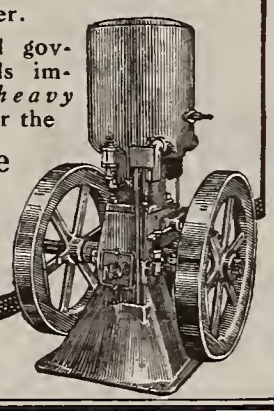

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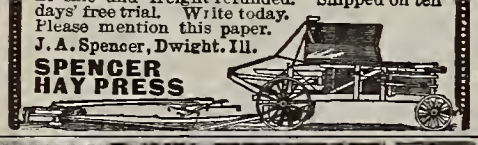

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Live Stock and Dairy

Calving in Winter

THE best and safest time for a heifer to freshen is in the summer when she is in pasture, as she then has the most natural food and environment. But it sometimes happens that she must freshen in the winter on dry feed, and under these conditions it requires the best intelligence and care of the dairyman to produce a good cow.

She should be free to take all the exercise possible and be never tied up for any length of time in a stall. Care must be exercised to see that she is not abused or injured by the boss animals of the yard.

The milking possibilities of a cow are inherited from her ancestors, but these must be developed in her by proper feed and management. Her capacity is made before she freshens, not afterward. This cannot be done in a short time. In fact, the owner must have had it in mind from the time she was a calf and fed for this end.

The heifer, while having plenty of feed, should never be allowed to become fat. Especially is this true as she approaches calving-time. Neither must she be forced to depend entirely upon the straw-stack for her food. She needs feed now to develop the calf as well as her own organism. Food, out of which she can make blood, bone and muscle, and milk is produced from the same class of feeds. To be explicit, one hundred pounds of wheat-bran, one hundred pounds of oats chopped, fifty pounds of corn-chop and twenty-five pounds of linseed-meal or oil-cake mixed together makes one of the very best feeds at this time. Keep in mind the fact that this is the most critical period in her life, and she will need all the health, strength and vitality possible. For roughage, let her have free access to good straw, but avoid feeding too much hay.

As the time approaches, she should be placed in a roomy box stall liberally bedded with clean straw. See that her bowels are in loose condition. If they are not, mix a good handful of Epsom salts with her grain food night and morning for several days before calving. Be on hand when the calf comes, even if you must stay up all night. This is especially important in cold weather. See that the calf gets up as soon as possible and that it gets the first milk, a substance necessary to its life and health. If there is any remaining in the udder, milk it out, and continue to do so.

The cow should now be fed a warm mash of wheat-bran or something similar. What is still better perhaps, is a gallon of oats soaked for sometime and warmed up with hot water. Let her have good hay to nibble at, but reduce the grain rations until all inflammation has subsided. In cold weather give her small drinks of warmed water several times a day. Never allow her access to ice-cold water.

If the udder swells, bathe it with hot water, using a flannel cloth wrung out of a bucket of hot water and hold it on the inflamed parts. Keep this up persistently twice a day, a half hour, if need be, at a time. Then rub with melted lard to which has been added a little turpentine.

As the future usefulness of a cow is made or marred at this, her first calving, it will pay to take pains.

R. P. KESTER.

Pointed Queries

Do you allow old and young stock to stand together these cold nights? The largest and strongest will pick the most comfortable quarters.

Why not set up a few shocks of fodder against the hen-house to make it warm, and run a couple of wires around it to keep the stock away from it? Your hens will repay you well for the little trouble, and eat less feed in the bargain.

Are you allowing those hogs to pile up on each other, and squeal all night long to keep from freezing? If so, they are squealing dollars and cents out of your purse. Good, dry bedding and wind-proof quarters are the missing links in many a farmer's hog management in the winter.

Are you feeding a wide variety of grains and roughage this winter, or are you simply supplying rations that will "fill up" the quickest? Even though you care nothing about the good health and comfort of your stock and poultry, mixed feeds go farther than single feeds, and this saving added to the extra growth and development makes it all the more desirable to feed as wide a variety as it is possible to obtain.

Have you turned the colts out to "rough it" with the older horses? If you have you may expect some scrubby, stunted creatures to turn out on the grass next spring. And all the grass in Christendom won't make them quite what they would have been, had you cared for them as you should. They never get entirely over neglect the first winter of their existence.

You may say all these queries are commonplace, yet can you answer even half of them to your own satisfaction? If you can, just a little greater effort on your part will enable you to take your ease in prosperity these wintry days; otherwise, it's your move. You'll never make a successful farmer till you learn that the cheapest way to take your stock through the winter is far from being the best way, and that "hit-or-miss" methods bring "hit-or-miss" results—generally miss.

M. A. COVERDELL.

Some Calf Don'ts

Don't let the calf run to a straw-rick or a stalk-field for its winter feed. If you do, it will certainly be long-haired and wobbly when spring opens.

Don't feed the calf in a leaky trough, for he will not get all his ration. The chickens and the hogs that run beneath the trough may be glad of the leak, but the calf is bound to suffer.

Don't let the calf seek the corner of a barbed-wire fence for its shelter from the storms of winter. If you do, the calf's hide may have to be stretched on that fence before spring opens.

Don't turn the calf to the feed-trough with cows and steers, and expect it to get a proper amount of feed. It will be fought away, while the older stock devour the portion that should fall to it.

Don't feed the calf grain it cannot masticate. Grind it for him, and don't insult him with straw while he is standing where he can see and smell the sweet clover-hay you are feeding to your milk-cows.

Don't beat and kick the calf around because it don't go into the stall when you desire or because it butts the feed out of your basket before you can empty it in the trough. You cannot pound sense into a calf or any other animal.

Don't send the calf out to an old pond covered a foot thick with ice where he must slip, slide and skate around until he finds the hole where he is to stick his nose into the ice-cold water and drink or go thirsty. Water just from the well beats this plan badly. Give it to the calf in a bucket or tub if no other way is better.

W. D. NEALE.

Wintering Breeding-Ewes

INTELLIGENT feeding is the first principle of successfully wintering a flock of ewes, and good, comfortable shelter is the second principle to be intimately associated with it.

The care and feeding of the flock during the fall should be so conducted that the ewes will gradually get used to dry feed while pasture and forage are yet plentiful; for that reason the most intelligent flock-masters begin feeding dry feed and roughage early in the fall so that the ewes may gradually become accustomed to the change. Ewes that are fed a small quantity of dry feed and provided with comfortable shelter may be safely allowed the run of the pasture until the ground freezes. Many, however, make the mistake of compelling the ewes to obtain the main portion of their food from the pasture during the late fall months, but I know from experience that it is dangerous to compel any kind of farm animals to eat an excessive amount of forage that has been more or less damaged by freezing.

If you are to secure good growth and healthy development of the unborn lambs, the ewes must be maintained in vigorous condition through the winter. Breeding-ewes that have suckled lambs during the summer are certain to be down in flesh and must be given special attention and liberal flesh-producing feeds so that they will be gaining in condition at the time they are coupled. This special care should be kept up steadily during the winter months, for it not only has a marked influence upon the flesh condition of the ewes themselves, but it exerts a powerful influence upon the growth and development of the fetus.

Clover, alfalfa or mixed hay, with a little ensilage or roots for succulence, and a light ration of home-grown grain foods will form a ration for the breeding-ewes that will be hard to beat. Oats, barley, peas and wheat are all well adapted to the needs of the ewe during the time she is pregnant. Corn should not be fed in large quantities to breeding-ewes, as it is too heating and has a tendency to produce fat rather than flesh. A flock of breeding-ewes will thrive better if allowed a wide range of diet, as it stimulates their appetites and induces them to clean up their rations without waste.

Good care and kind treatment of the breeding-ewes during the months when they are confined to the yards and sheds is very important. It pays big returns to have the ewes accustomed to being handled at lambing-time. We should use every effort to keep them quiet and to prevent them from running and crowding through doors and narrow alleyways. No one should be allowed to excite the flock by coming unexpectedly where they are and causing them to crowd and become restless.

Breeding-ewes must have plenty of room, and many flock-masters make a serious mistake in crowding their ewes when they are heavy with lamb. Sheep require exercise and for that reason they must have plenty of barn room and good-sized yards for exercise. During bad weather, when the ewes are confined to the barn or shed for a few days, it is bad management to let them become crowded and overheated, for they are liable to take cold when turned out and develop catarrh. It is better to divide the flock into bunches of twenty to forty and place in separate pens and yard; there will be less crowding, and it will be easier for the flock-master to handle them and become better acquainted with the various individuals under his care. They should be encouraged to take plenty of exercise. Every day when the weather is fair they should be allowed the run of a few acres and given an opportunity to roam about at will. Other conditions being favorable, with ewes properly fed and well exercised, there will be few puny and inferior lambs in springtime.

W. MILTON KELLY.

Wings for the Farmer

THE farm is a busy place. Not a minute's time to lose from morning to night. That is one reason why the separator comes in so handy. When the farmer feels "as if he should fly," there is so much to do, the separator furnishes the wings for his journey.

It used to be a pretty trying thing—it is now with farmers who have not a separator of their own—to hitch up and drive one to four miles right at the beginning of the day, taking the milk to the creamery. There is always more or less waiting there until each man has his turn at the platform, and all the time the farm work waiting or dragging on slowly.

With a home separator, in a few minutes the milk will be through the machine, and the cream taken away to ripen or made ready for the team if the cream-gathering system is followed. The time saved by the home separator would alone pay for the machine.

But another good part of it is that the milk from the separator is always warm for the hogs and calves. This has a higher value than most of us are apt to think. If the milk goes to the public creamery, the skim-milk is taken right out of a barrel, on the top of which is often a scale of ice in cold weather, and fed to the stock that way.

Reason will tell the man who stops to think about it that this is not good for any kind of stock. Have we not all seen a calf stand and shiver after it has had its breakfast of this ice-cold liquid? Just to the degree that the calf is made cold and uncomfortable, its growth is retarded.

But take the warm milk and no such result follows. The calf or hog feels good and warm inside, and thrives better for it. One of the best men to raise calves I ever knew always warmed the milk he gave them. That was when he had to take it into the kitchen every time and heat it up in a kettle on the stove. Now the separator gives us a chance to use warm milk night and morning, and puts flesh and muscle on the calf or pig that eats it much faster than by the old method.

A good machine pays for itself with interest, in time saved, stock benefited and cream well extracted.

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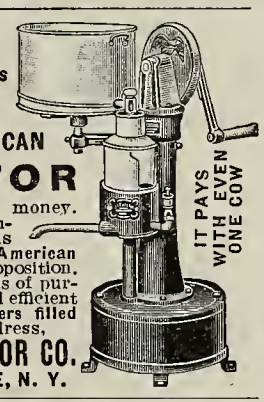

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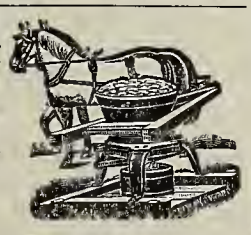


Live Stock and Dairy

Some Points in Pig Production

THE important thing in raising hogs successfully is to have high-grade stock. The best pure-bred is none too good, but high grades will do very well if you are unable to procure the registered kind. But it is not enough to have the right kind of breeding stock; that stock must be given the right care and attention if they are to be made profitable.

I am thoroughly convinced that a large number of farmers feed too much corn for the good of their brood-sows, especially near farrowing-time. At this time the brood-sow must necessarily have a variety of feeds of the kind that make bone and muscle, such as ground oats, ship-stuff, bran, oil-meal and plenty of range on clover and blue grass or rye pasture. During the cold winter months, however, when hogs are almost deprived of any green feed, clover or alfalfa hay makes an excellent substitute and is greatly relished.

If we are going to have good, first-class brood-sows we must give the proper attention to the make-up of the young gilts. If they are from good dams and given the care and feed they deserve, success is almost sure to follow.

The next thing to consider, however, is the male to use. He should in all cases be a pure-bred. It must not be forgotten that the male is at least half the herd, and sometimes it appears he is more than half; and it is not wise, nor is it good business judgment to let a few dollars stand in the way of making that half the best possible. The difference in the value of the first litter of pigs will pay the difference in the cost of the boar and usually some besides.

Every man should be his own judge as to the best time of mating. If he has good, warm houses, so that the young pigs can be kept warm and dry, should the weather be cold and stormy at farrowing-time, it is well to have a few litters of winter or early spring pigs from mature sows, but I do not think it best to have them come at this time of year from young sows. I never let my young sows bring pigs any time except in the early fall or late spring, I mean when the weather is apt to be somewhat warm. However, I usually have a litter or two during the winter from some of my mature sows, and they pay splendidly.

The gestation period is one hundred and twelve days, so a man can arrange matters to suit himself, as they will raise the pigs at any time that is desired.

The sows should not be fed an exclusive corn diet at any time during the period of gestation, but more of a mixed ration of ground oats, ship-stuff and bran, with an occasional addition of oil-meal; and I have learned that the soft feed should be increased and the corn decreased near the time of farrowing.

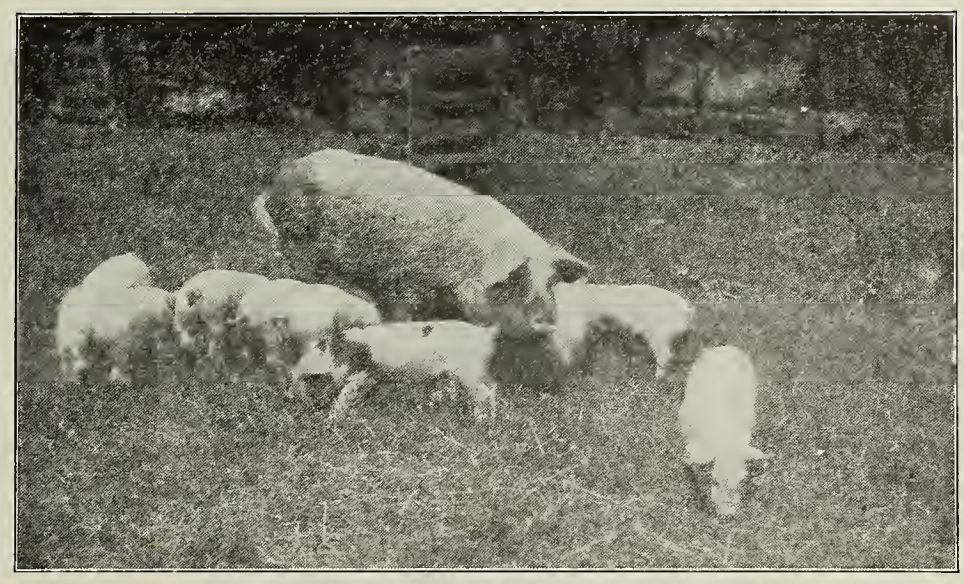
After the sows begin to get heavy they should have separate sleeping-quarters or not more than two should sleep together. If they are allowed to pile up, there is great danger of some of them losing their pigs.

A week after farrowing, a sow should be fed on full feed of rich slop, with corn enough to keep her in good condition. The pigs should be taught to eat as soon as possible. Slop should be the principal feed. If you have milk handy, put it in. They should be kept growing from start to finish. It is a wonderful drawback to any young stock to allow them to get poor and runty just after weaning.

In changing from one kind of feed to another, the change must not be too radical, especially on new corn. Great care must be taken to increase feed gradually.

The health of the hogs must be well guarded by giving them all the pure water they want; keep plenty of ashes and salt before them at all times; keep the feeding-pens pure and clean by raking up all filth and trash and applying a good sprinkling of lime in and around the buildings occasionally. Thus much trouble may be avoided in the herd and consequently better profits realized from their breeding and feeding.

R. B. RUSHING.



Care in December Means Pigs in April

Fitting the Sow for Mating

THE number of pigs to the litter and their vigor depends very largely on the way the brood-sow has been fitted for mating. Every dam on the farm should be gaining in weight and at the maximum of physical vigor when mated. She should be feeling fine, the reason being, in the case of the brood-sow, that Nature decreases or increases the litter largely in view of the food supply, just as the queen bee increases or decreases the population of the hive according to the supply of honey in the fields. With plenty of feed and the system in fine condition, larger litters may be expected, the number as well as the vigor of the litter depending largely on the physical condition.

The number of the litter will depend to some extent on the milking qualities of the brood-sow. There is a good deal of truth in the old maxim, "poor milkers are shy breeders," and on the contrary good milkers are likely to be regular breeders. Nature in all her operations keeps an eye out for the welfare of offspring.

No animal should be mated when declining in weight, vigor or vitality. How long after mating this gain should be carried depends to some extent on the age of the sow and her tendency to take on fat. It is not safe to feed mature sows all that they can eat or, in other words, to fatten them as for the shambles. This makes them lubberly and indifferent to the welfare of their offspring.

It is quite safe for gilts to carry a good deal of flesh. There is not much danger of getting them too fat if they are fed a properly-balanced ration. With any kind of a full litter there is a very great draft on the system of the gilt. She has to provide for her own support, and should provide for her own continuance in growth (for she is not mature until she is three years old), as well as supply the wants of from five to eight lusty youngsters.

WM. H. UNDERWOOD.

Pen Jottings

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M. A. C.

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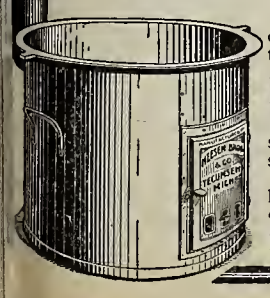

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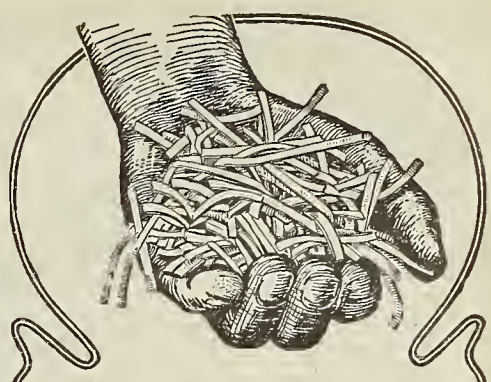

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Lewis on Ballinger

SOME of our readers have had difficulty in classifying Mr. Alfred Henry Lewis, whose stimulating letters we are glad to place from time to time before them. Most of them must by this time have seen, however, that Mr. Lewis is one of those rare men who observe for themselves, and write exactly as they see. Probably no one in the world always agrees with him. FARM AND FIRESIDE certainly does not; but it likes to give its readers the chance to look at public life through so wide-angled a lens as Mr. Lewis' eye.

On the opposite page will be found Mr. Lewis' impressions as to Richard Achilles Ballinger, Mr. Taft's Secretary of the Interior. It takes no detective to see that Mr. Lewis, for one, does not regard Mr. Ballinger as guilty of the things whereof he now stands charged. We hope that Mr. Lewis is right. We should be sorry to have a cabinet member convicted of such things. He restored one hundred and eighty million acres of public lands to entry, which Mr. Garfield, under Roosevelt's instructions, had withdrawn to protect power-sites. Mr. Ballinger's alleged reason was that the law does not justify the withdrawal. And then he heard the roar of protest from the people, and withdrew great areas himself under direction of the Geological Survey, with quite as little basis in law. If Garfield's acts were illegal, Ballinger's similar acts are. So much for the legal phase of the matter.

Mr. Glavis, former Chief of the Field Division of the General Land Office, asserts in print that while Mr. Ballinger was commissioner of the office, he acted in ways abundantly set out, in the interests of fraudulent claims to Alaska coal-lands of fabulous value. The record will show whether he did or not. Glavis says that after Mr. Ballinger left the Land Office he became attorney for these claimants, in violation of the law which forbids such services on the part of ex-employees within certain time limits. The records will show whether he did or not. Mr. Glavis says that after Mr. Ballinger became Secretary of the Interior under Mr. Taft, he sought by official acts to crowd these claims to hearing in so short a time that the evidence of the government, for whom Mr. Ballinger was supposed to be acting, could not be put in. The records will show whether he did or not.

Mr. Glavis says that when cut off from every avenue of protest in his own department in his desire to save these coal-lands for the people, he called on Chief Forester Pinchot to act through the forest laws, and then appealed to the President. The result was that Mr. Glavis was discharged. Mr. Ballinger makes a general denial. A general denial is not sufficient in a case where the facts are so completely on record. If Glavis tells the truth, Mr. Ballinger is not fit to be Secretary of the Interior, and Mr. Taft courts shipwreck for his administration by retaining him. Up to date, no one seems to have accused Mr. Glavis of anything but good motives. Mr. Pinchot's motives are above suspicion. The whole matter seems to call on the President and Mr. Ballinger for defense, Mr. Lewis to the contrary notwithstanding.

*

As the last word of the above is written the press despatches appear with what is called a denial from Secretary Ballinger; but they are evidently denials of charges other than those of Mr. Glavis, except, perhaps the first, which is general. "To say that I have ever advised, ordered or lent support to any effort to perpetrate a fraud upon the government," he is quoted as saying, "is not only false, but intentionally so if by any one who has taken the trouble to inquire into the facts." Such being the case, Mr. Ballinger will no doubt explain his motives in doing the things which Mr. Glavis says he has done, or deny the acts.

He denies that he owns one hundred and fifty thousand shares in the Alaska Petroleum and Coal Company. Mr Glavis, in his *Collier's Weekly* article, which is the full indictment, does not say that Mr. Ballinger has any such financial interest. The secretary also denies that either he or his law firm ever was attorney for this company, or advised or counseled it in its effort to acquire title to public lands. Mr. Glavis charges that Mr. Ballinger was attorney for claimants interested in the so-called Cunningham claims, and for a congressman or congressmen unnamed with reference to Alaskan lands. Mr. Ballinger's denial apparently is not directed at the Glavis charges.

Therefore, we are glad to believe that Mr. Ballinger is biding his time to make that full and explicit disproof of the Glavis charges which his duty to himself and the administration requires. Up to date he does not appear to have done so.

Our New Enemy, Pellagra

FOR many years some of us have noted from time to time mentions of a dread disease, the scourge of portions of Italy, called pellagra. Sometimes it was termed "the hunger madness," sometimes *mal de la miseria*, or disease of the poor. We never examined the matter much, because such a disease, we thought, could be of little concern to Americans, except as cause for pity for the poor Italians.

Now, however, we must study pellagra. It has appeared in the United States. Doctor Lavinder of the United States Public Health and Marine Hospital Service wrote a year ago that if it continued to advance it would prove itself a matter of national concern. It has continued to advance. Two years ago it was known to exist in the states of Massachusetts, New York, South Carolina and Alabama only. Now it is reported in sixteen states. It is found in every Gulf state except Texas, in all the Atlantic states as far north as New England save New Jersey and Delaware, and in New England it has increased in Massachusetts. The inland states of Tennessee, Arkansas and Kansas have it, and Illinois is in the group of the worst four states with South Carolina, Georgia and Alabama.

There is no need to become hysterical about the matter, for the way to avoid pellagra is apparently clear and open to all, simply to avoid eating food made from corn which has become moldy. The avoidance of all foods containing corn would make immunity sure. It is not contagious. Keeping free from it is largely a matter of knowing about it. That is why this article is published.

The disease is a terrible one. A writer in *McClure's* says that it is worse than smallpox, leprosy or the bubonic plague or "black death." Up to date it has killed about six out of every ten it has attacked in its acute form. It is accompanied by peeling off of the skin, symptoms like gangrene, spasms, delirium, insanity and a host of other symptoms, all of them painful. Seemingly, it is the worst torture to which flesh is heir. Perhaps its worst feature is that it does not kill at once. It often seems like a skin disease, and its name is the Italian *pell 'agra*, meaning rough skin. But it is probably a disease which consists of a progressive affection of the nerves and brain, the eczematous trouble being merely a symptom.

It has been known in Italy for one hundred and sixty years. While it has been called a disease of poverty, it attacks people in all stations in life who eat moldy corn, and also animals. It is thought that the disease of horses known as "blind staggers" is often, if not always, pellagra, and is caused by feeding of moldy corn. The best guess as to its cause seems to be that it is caused by an animal microbe of the same class as the malaria germ, instead of a vegetable bacterium such as causes so many of our more common diseases. It is probable that this microbe lives in the mold of corn, just as the malaria germ lives in the mosquito. If this be the case, moldy corn is more likely to have the infection now than in former years before it was so common. Hence, every one using corn, either in the feed-lot or the pantry, should be more careful than ever before as to methods of handling it. Probably we have had pellagra for many years without knowing it, just as we have had hookworm disease; but there seems to be every reason to believe that it is on the increase. We know about it now, and forewarned is forearmed, or should be. Pellagra is a dreadful disease, and, therefore, it seems every one's duty to sound the alarm against moldy corn, moldy corn-meal or breakfast food or moldy corn-bread. The chief source of the disease in Italy is moldy *polenta*, a sort of corn-meal mush.

War on the Hookworm

AS IF a newly-discovered army of foes had been found encamped in the heart of the land, the drums of Science are beating and her bugles are calling for a war on the hookworm. Anywhere from two to five millions of people already disabled and dying from it are eloquent proof that it is high time. People within the infected zone or those traveling in it should have in mind the ways in which this disease is caught, and how to avoid it. Therefore, we repeat:

The hookworms lay their eggs in the bowels of the persons who have the disease, and pass off into vaults or sewers or on the ground. Once in the ground they develop into a sort of chrysalis state, and spread to some little distance from the place of deposit. On coming in contact with the bare flesh, they at once penetrate the skin and find their way through the blood and otherwise to the bowels, where they become adult hookworms. Therefore, people in the infected zone should never go barefooted or allow their children to do so. People should be careful about putting their bare hands or limbs on the ground along streams carrying sewage, or about country school-houses or other places where night-soil has ever been dropped. All such excrementitious matter should be disposed of in vaults, septic tanks and in other safe ways, and never on the surface of the ground. The strictest possible rules as to this should be enforced by parents, teachers and boards of health.

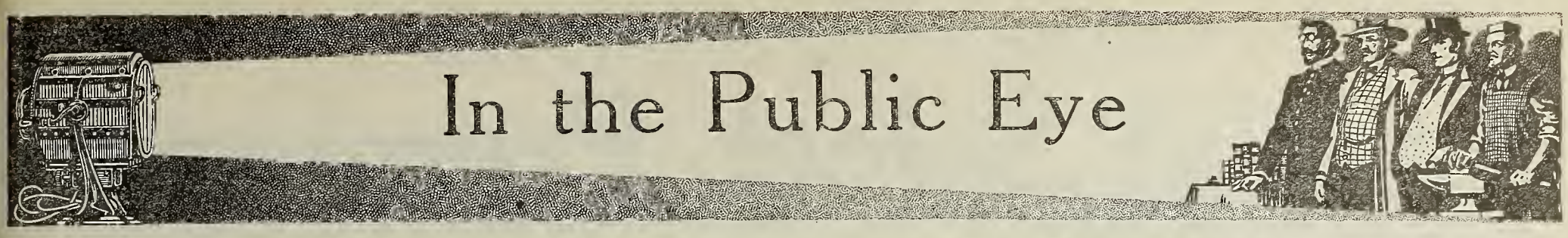
We speak of the "infected zone" as if we knew its northern line; but do we? Mr. Rockefeller has given a large sum to endow a commission to extirpate the disease. The thymol-and-Epsom-salts treatment seems so simple and certain that we are hopeful that a few years of such well-endowed effort will stamp the pestilence out and restore to health millions of the afflicted. Doubtless we shall soon know how far north the disease extends. In the meantime, everybody everywhere may well be careful.

A New Corn for Breeding Purposes

A NEW grain or fruit is always important, and in these days of hybridization, it is more so than formerly. Professor Hansen's Asiatic alfalfas may be as important as the invention of the steam-engine when we get through breeding from them. The Agricultural Department at Washington has sent us a leaflet on a new sort of corn from China, which is interesting. We condense from it.

> A small lot of shelled corn, of a kind that is new to this country, was sent to the United States Department of Agriculture from Shanghai, China, in 1908, and tested. It proved to have qualities that may make it valuable in breeding a corn adapted to the hot and dry conditions of the Southwest. The plants average less than six feet in height, with an average of twelve green leaves at the time of tasseling. The ears average five and one half inches in length and four and one third inches in greatest circumference, with sixteen to eighteen rows of small grains. On the upper part of the plant the leaves are all on one side of the stalk, instead of being arranged in two rows on opposite sides. Besides this, the upper leaves stand erect, instead of drooping, and the tips of the leaves are therefore above the top of the tassel. The silks of the ear are produced at the point where the leaf blade is joined to the leaf sheath, and they appear before there is any sign of an ear except a slight swelling. This is an excellent arrangement for preventing the drying out of the silks before pollination. While this corn may be of little value itself, these desirable qualities may be imparted to a larger corn, which will thus be better adapted to the Southwest.

These facts would seem to indicate that China had maize before the discovery of America or that this corn, new to us, is a suddenly-developed variety. Shall we next hear that the Chinese had flying-machines thousands of years ago, and gave them up as dangerous or useless?



Richard Achilles Ballinger

By Alfred Henry Lewis

He is Mr. Taft's Secretary of the Interior. In that fife-and-drum corps called a cabinet, and meant to rumble and tootle in harmony with an administration, the Secretary of State comes officially first. And yet that same grave Secretary of State, who sits on the White House right hand when the fife-and-drum corps is presidentially called to order, is of little or less consequence compared with the Secretary of the Interior.

The Secretary of the Interior does things. He holds the public domain in the official hollow of his hand. He stands in *loco parentis* to what Indians still cumber the face of Nature, and dispenses unto them those pleasant annuities, and supervises their real-estate transactions—which are ever fizzles. It is he, also, who controls the pensions, and from his fingers our veterans, and what widows and orphans appertain to them, receive the one hundred and fifty million dollars which as such is annually paid out. These and other things does the Secretary of the Interior, and it all serves to make him of moment to the public of these United States.

The office is a strong one. Though it were held by one essentially weak, watching it would still be worth the popular while. A baby is no mighty force for either good or harm. Give that baby a six-shooter, and the combination would justify an interest in it on the part of every soul in range. All of which could be said of the Secretary of the Interior, let the weakest hold the place. It might be repeated with emphasis in the instance of Mr. Ballinger who, so far from being weak, is a strongest figure in Mr. Taft's official family. Also, as a member of that cabinet fife-and-drum corps, he has already tootled out a few high notes of his own, and, while such original tootling has resulted in discord, it no less furnishes additional argument in favor of writing and reading concerning him.

*

His baptismal name is "Richard Achilles." "Richard" he got from his father. In the face of silence on that head, I should say that "Achilles" was conferred by some one with a bent for the heroic and a leaning toward the Greeks. He was born fifty years ago in the Iowa village of Boonsboro, a hamlet so small that map-makers now and then forget to put it down.

Those who would know the colt should know the sire. Mr. Ballinger's father was "Colonel Dick" Ballinger Since Ballinger *pere* led an Illinois regiment in the Civil War, I infer that the family must have crossed the Mississippi toward the rising sun while our hero was still being carried in his mother's arms.

The Ballingers were ever rolling stones; and rolling stones, by word of the copy-books, gather no moss. Ballinger *pere,* eminent as a rolling stone, kept grocery-store, edited a country paper, "licked" the rival editor, was postmaster at the Illinois village of Varden, studied law with Abe Lincoln, failed at raising sheep, went broke in the trade of cattle and from first to last never hived a dollar. That Southward rush at the head of a regiment should have guaranteed the latter dollarless condition. The money-maker is never the warrior. There are differences not to be bridged between sabers and yard-sticks, cannon-balls and pound-weights. Show me a natural-born soldier and I'll show you a natural-born poor man. It's the fellow at the rear who waxeth rich.

Young Ballinger followed faithfully at the paternal heels in all of those trade ramblings. He clerked in the grocery-store, wrote "locals" and "worked" the press on the country paper, tended his father's flocks like another Norval without the Grampian hills while that parent was failing at sheep, and for those three years required by Ballinger *pere* to go bankrupt by way of cattle, he lived in a cow-saddle and "punched" said cattle most industriously. Boy Ballinger did everything save go to school; which last, when one remembers that from the beginning he meant to study law, was the one thing of all things he ought to have done.

*

Not that his nose was never between the covers of a book. While his pony dozed and the cattle grazed, boy Ballinger dipped blindly into Latin and Greek. He recited his Latin to an erudite hospital-steward at Fort Larned. Once a week he galloped seventy miles to go over his Greek with a clergyman adrift in those parts. For there were more stage stations than school-houses, bull-whackers than pedagogues, in Kansas during those far days.

Greek! Latin! There's a deal of educational claptrap abroad on the face of the earth, and in nothing is that claptrap more evident than in that business of Latin and Greek. And yet that seventy-mile canter on the trail of Greek shows energy, enterprise, force.

Boy Ballinger, no one knows how, put in three years at the Kansas State University, and later went through the Washington College at Topeka. Odd hours he read Burns and, having touched twenty-one, voted for James A. Garfield. He talked with Senator Ingalls. That togaed henhawk said, "Go to Williams College. It's a poor boy's seminary."

Boy Ballinger pointed East for Williams College, nose tip-tilted as though somewhere in the distance he smelled an orchard. At Williams he ran a "Student's Restaurant," kept a "Boarding-House," pumped a church-organ—for considerations fiscal rather than musical or religious—and in forty other fashions jumped sidewise for what coin was needed to pull him through. In the end he won his sheepskin. At the same time he won and wedded Miss Bradley, the sister of a classmate. The latter was the more important triumph. I'll back a marriage license against a college sheepskin any day when it comes to sending a man forward in this world.

*

Having achieved his ambition, a college course, Mr. Ballinger—the married man—took up Blackstone and Coke on Littleton in the Chicago office of S. Corning Judd. Per incident, and by way of giving the want-wolf a stand-off, he read proof on the *Live Stock Journal.* Better a dinner of herbs where love is than the stalled ox—or words to that effect.

The rolling-stone strain within him beginning to assert itself, Mr. Ballinger went to Alabama. Here he practised law and offended a chivalric son of the South, yclept Jones, who reached for his pistol. Mr. Ballinger, after the rude manner of his native North and upon a principle perfected by Mr. John L. Sullivan, "swung on" Mr. Jones before he could get his artillery to the front and knocked him out.

Not finding Alabama the El Dorado his fancy had painted, Mr. Ballinger went cross-lots to the shores of Puget Sound. Long before, in Kansas, he had sown the seeds of an appetite for office. The place he filled in sunflower public economy was odorous, but not impressive. His duties were to pay five cents bounty to every one who brought him a jackrabbit-pelt. The place smelled like a tannery, and when Mr. Ballinger went upon the street, he was attractive to the local dog. At Port Townsend that love of office, contracted in sunflower, jackrabbit hours, struggled to the surface. Mr. Ballinger became a United States Commissioner. Then he became a judge. Then he became Mayor of Seattle —a "reform mayor."

Mr. Roosevelt was in the White House. Junior Jimmy Garfield sat in the cabinet. Mr. Roosevelt went looking for a Superintendent of the Land Office. Mr. Garfield said, "Get Ballinger." Mr. Garfield had met Mr. Ballinger at Williams.

"What's his politics?" asked Mr. Roosevelt.

"He hates thieves," was the reply.

Mr. Garfield told Mr. Roosevelt an engaging tale of how Mr. Ballinger had once killed three rattlesnakes with his quirt on the banks of Rattlesnake Creek.

"There are rattlesnakes in the Land Office," observed Mr. Roosevelt to Mr. Ballinger. "I've pitched upon you to kill them."

Mr. Ballinger did in the Land Office what St. Patrick did in Ireland. Also, he noticed how strenuously Mr. Roosevelt was working to make Mr. Taft his successor. Mr. Ballinger resolved to go with the stream. As a resolution it was not unwise. There is more water down-stream than up. Also, it is easier to drift all day than pull an oar an hour.

When Mr. Ballinger went Westward to his Seattle home, he bore Mr. Taft and his fortunes upon his slope of thought. He caused himself to be named National Committeeman for his state of Washington. He went to the Taft convention a Taft delegate, became part of the committee on platform, and in every angle of the situation did all he knew for Taft. When the latter was made President, he stretched out for Mr. Ballinger and drew him to him as a cabineteer.

Mr. Ballinger, Secretary of the Interior, has had trouble with Mr. Glavis. The latter, an underling of Mr. Ballinger's, complained that certain Cunninghams were "trying to swipe"—to quote New York City's East side—all of the coal-lands in Alaska. Also, that the seven Guggenheims—smelter kings, one of them in the Senate from Colorado—were actually the Cunninghams, the latter being but a Guggenheim alias for the ebon pillage of coal. Mr. Glavis further insisted that Mr. Ballinger's defense of the public's Alaska coal was by meditation and propense no defense at all, and that in doing all he might for the sooty interests of the Cunninghams, otherwise Guggenheims, he was—as the jockeys have it—riding for a fall.

Mr. Taft, sitting in his Beverly rocking-chair of double width and strength, went all through the tangle with a lantern. He emerged to find Mr. Ballinger "Not guilty," and cut off officially the Glavis head. Mr. Glavis, so Mr. Taft said, was barking at a knot. There be folk, however, who believe that there was and still is a raccoon up the tree.

*

Mr. Roosevelt had the college weakness. College is good, excellent, fine, but it isn't air, it isn't bread, it isn't water, and folk may live without it. Where did Washington go to college? Or Jackson? Or Lincoln? I ask these things to encourage ones who "didn't go to college."

Mr. Gifford Pinchot was a college man and therefore attractive to Mr. Roosevelt. Mr. Pinchot had a fad—the fad of forestry. Mr. Roosevelt, cognizant of his tree fad, asked him to come to Washington. The two shook hands, looked each other over and fell together like a shock of oats. Mr. Roosevelt put Mr. Pinchot in charge of the national forests. Mr. Taft, with the Presidency, inherited Mr. Pinchot.

As forestry chief, Mr. Pinchot dealt with the law as it should have been and not as it was. He did not remember, like Mark Twain, that "posterity has done nothing for us," but robbed the present to enrich the future, and—so they say—took one hundred and eighty million acres out of public lands available for settlement and enthusiastically added them to the Forest Reserve. It is Mr. Pinchot's contention that they would never have seen settlement by the gentle homesteader, that they were already marked down for absorption by a modest, daylight-shunning water-power trust, which needed in its business the power-sites those lands incidentally bore. Be that as it may: Along comes Mr. Ballinger as Secretary of the Interior. Keen, clear, alert, law to his finger-tips, he sets aside the Pinchot confiscation, deforests those one hundred and eighty million acres and readds them to the general public domain from which by Mr. Pinchot they had been subtracted. Mr. Pinchot carried his woes to Mr. Taft. That executive gave judgment as in the Glavis case for Mr. Ballinger, and Mr. Pinchot dolefully withdrew.

*

Quick, wiry, Mr. Ballinger has a lean, keen look, like the head of a lance. His eyes are clear, level, bright and—as go the eyes of politicians—honest. There's no fault to be found with his forehead, none with his jaw. Also, his nose and his mouth might be worse. His hair hasn't wholly abandoned him, and that which remains faithful has begun to turn to the color of a 'possum.

In manner, Mr. Ballinger is democratic with that effortless democracy found only in the West. He meets men on even terms, doesn't look up nor look down, and if he has vanities, he at least doesn't transact them at the expense of other people. He can see a joke and tell a joke; he not only knows when to laugh, but does. This is a sign of mental health.

Mr. Ballinger is a lawyer deeply read. Likewise, he has an itch to write, and is the author of "Ballinger on Community Property." Unlike his father, he can make money. His house in Seattle is referred to in the local papers as "palatial." I should say he likes horses, for he bought Mr. Roosevelt's Roswell when that ex-President sailed off in quest of lions. Roswell is the horse upon which Mr. Roosevelt jumped down the throats of so many cameras. Mr. Ballinger has two slim sons at school. But the best thing about him is Mrs. Ballinger. Will his rule be useful? We must wait and see.

Special Select Premiums

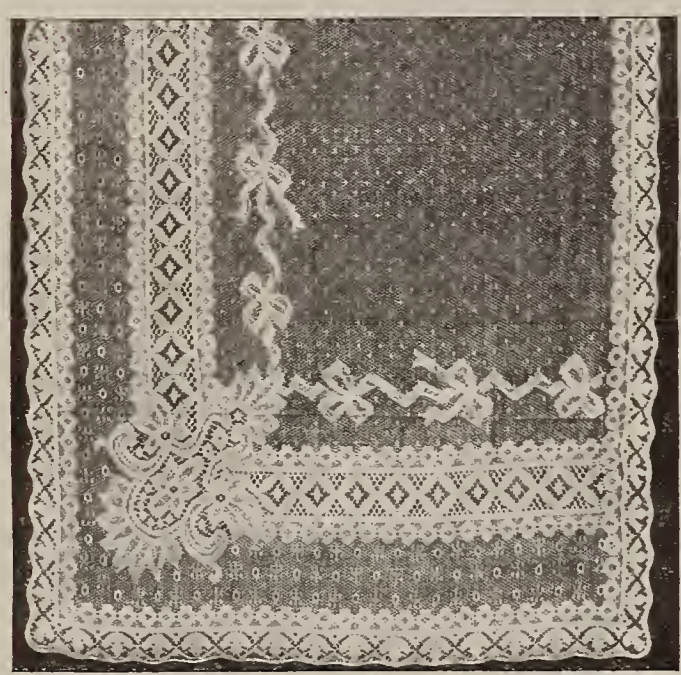
For Farm and Fireside Readers

OUR readers were so pleased with the premium offers in the last issue of FARM AND FIRESIDE that we have decided to offer these new special select premiums to every FARM AND FIRESIDE reader. You can get the premiums right away without cost by doing a little favor for FARM AND FIRESIDE. We want more of your friends and neighbors to read FARM AND FIRESIDE. Won't you help us to tell them about the new and greater FARM AND FIRESIDE? Show your copy of the paper to a few friends, and ask them to subscribe, and we will send you your choice of the handsome premiums shown on this and the following pages.

TO GET the premium you want send FARM AND FIRESIDE the number of subscriptions stated under the premium. You will receive the premium at once. Until December 30th you may send subscriptions at the old prices, as follows: 35 cents for one year, 50 cents for a two-year subscription to one address, $1.00 for a four-year subscription to one address. Each two-year subscription at 50 cents counts as one subscription toward a premium; each four-year subscription at $1.00 counts as two subscriptions toward a premium. New subscriptions, renewal subscriptions and your own subscription will all count toward any premium.

Household Articles

Full-Size Nottingham Lace Curtains



No. 129

In this artistic Nottingham Curtain we offer you unusual value. The curtain is full size, 45 inches wide by 3 yards long, and as you will see from the illustration, the pattern is unusually strong in character. We selected this curtain from hundreds of others and consider it in quality and design the superior of any curtain on the market for our use. These curtains are high class in every particular and you will not be ashamed to use them in the best room in your home.

OUR OFFER

Send us but **seven subscriptions** to FARM AND FIRESIDE and in return we will send you **1 pair** of these Lace Curtains. Or, we will send you **2 pairs for twelve subscriptions.**

Aluminum Novelties

No. 130

We feel sure that in this assortment of Aluminum Novelties you will find something of interest. We have not the space to describe each article separately, but will say that they are all well made and serviceable. These Aluminum Articles are handsome, durable and will not rust. We know that you will be very much pleased with them. Order by initial and number.

130A—Tea-Strainer
130B—Collapsible Cup
130C—Cigar-Case
130D—Memorandum
130E—Pin-Tray
130F—Picture-Frame
130G—Picture-Frame
130H—Salt and Pepper Pair

OUR OFFER

Send us only **two subscriptions** to FARM AND FIRESIDE and we will send you, postpaid, **your choice** of any one of these Aluminum Novelties.

31-Piece French-Decoration Dinner-Set

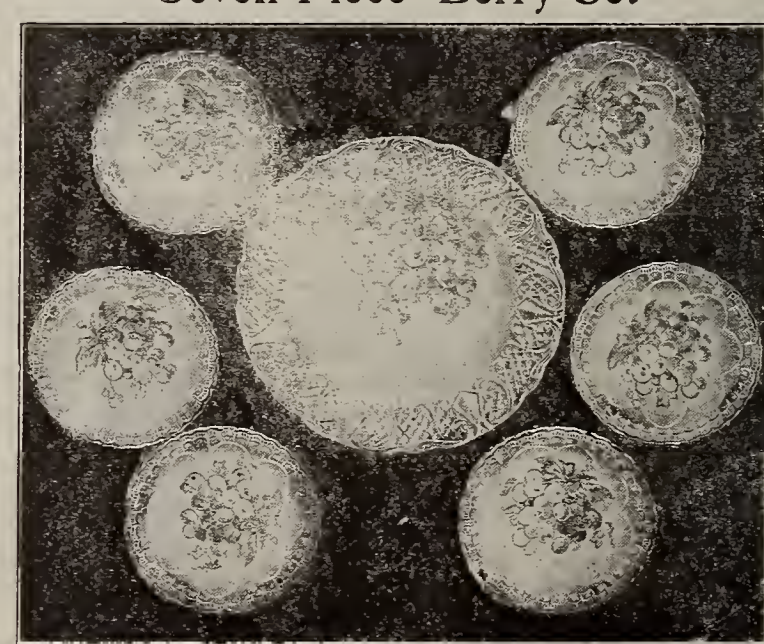
No. 132

This 31-Piece Dinner-Set is daintily and tastily decorated in pink and gold, the consequent effect being that of the highest-priced china. The glaze is snow-white, and as these dishes are burnt in three different kilns, the decorations will not wear off. The set comprises **6 Plates, 6 Cups, 6 Saucers, 6 Fruit-Plates, 6 Butter-Plates and 1 Meat Platter.** This is a handsome set and one that will give complete satisfaction.

OUR OFFER

Send us **ten subscriptions** to FARM AND FIRESIDE and we will send you this complete 31-Piece Dinner-Set by express, charges collect. Or, we will prepay all charges for three additional subscriptions.

Seven-Piece Berry-Set



No. 133

A Berry or Fruit Set is a household necessity. That's why we offer this 7-piece set, consisting of one 9-inch Serving-Bowl and six 5½-inch individual dishes, handsomely tinted and decorated. The illustration, while conveying the general effect, cannot show the rich tinting and appropriate color effects with which these dishes are so beautifully embellished.

OUR OFFER

Send us only **five subscriptions** to FARM AND FIRESIDE and we will send you this desirable Berry-Set by express, charges collect. Or, we will prepay all charges for three additional subscriptions.

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For Mother and Daughter

18-Inch Dressed Bisque Doll

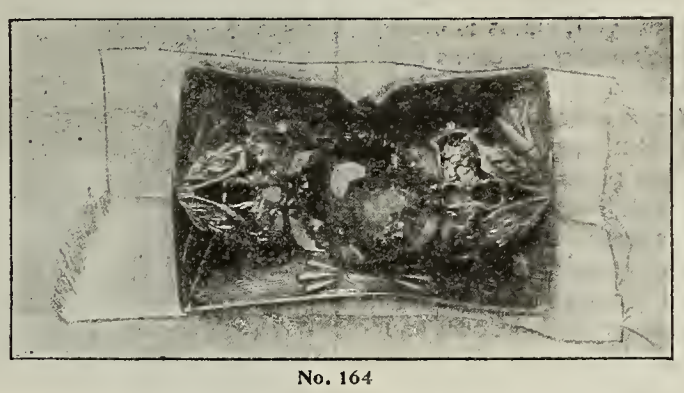
No. 163

The illustration tells the story of this handsome Dressed Bisque Doll more eloquently than we can. As you will see, the doll is dressed becomingly from the tips of her little low-cut kid shoes to the top of her pretty picture hat. And furthermore, unlike many similar dolls on the market, this doll's clothes can be removed and replaced at will. She opens and closes her eyes, for all the world like a real live baby, and with her pretty face and beautiful hair is just the doll to please the fancy of the little ones. Her limbs are jointed and her dress and hat are elaborately and ornately trimmed. In every way this beautiful doll will please, satisfy and make happy the fortunate possessor. This doll is manufactured for us abroad, in the country where all of the best dolls are made, and we have gone to considerable trouble and expense in order to secure this doll for this catalogue. But we count these as nothing against the pleasure that we know this doll will give to the little ones, and we want every little girl in our large family to have one.

OUR OFFER

Send us only **six subscriptions** to FARM AND FIRESIDE and we will send you this handsome Dressed Doll, all charges paid.

Art Sash-Pin



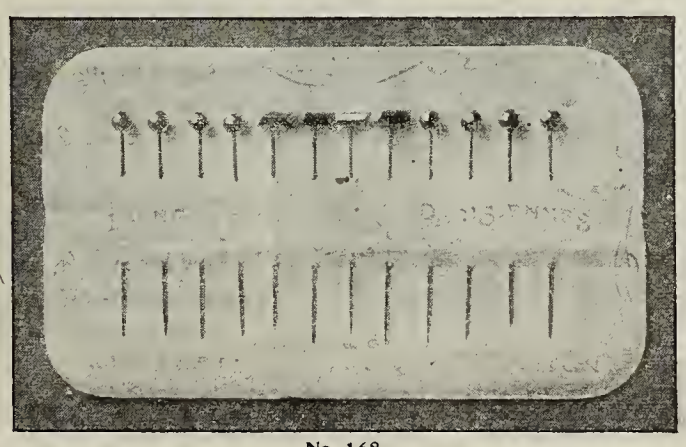
No. 164

This beautiful and artistic Sash-Pin is an imported article, made from heavy metal and set with a large handsome stone. The workmanship is the best and the design is unique and striking. These pins are used either as belt-pins or brooches by fashion's devotees and make an attractive addition to any woman's dress. We cannot do this article justice in this limited space. Send for one and see for yourself.

OUR OFFER

Send us **four subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, this attractive Art Sash-Pin.

Dainty Lace-Pins



No. 168

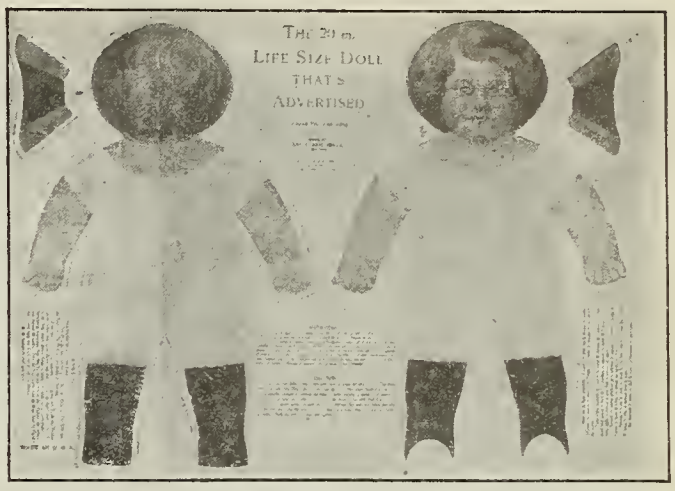
These dainty and delicate Lace-Pins are an importation from artistic Paris, where originate the highest creations in women's wear. These pins serve a variety of purposes, any, in fact, of the million uses that dress-pins fill. They come in three dainty designs and are finished in polished gold. A dozen in each set.

OUR OFFER

Send us only **two subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, a complete set of these Dainty Dress-Pins. Or, send us **three subscriptions** and we will send you **two sets.**

20-Inch Cloth-Doll Cut-Out

A Cloth Doll as large as a real baby, 20 full inches in height, to be cut out, sewed and stuffed with cotton. This is a patented article and is manufactured by but one concern. From them we have obtained the right to offer this popular doll. Every one knows this doll. It has been sold over every retail counter in the country and is the most popular low-priced doll ever offered.



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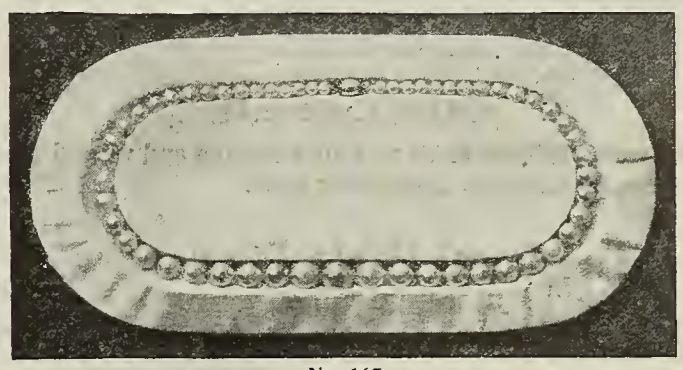
OUR OFFER

Send us only **two subscriptions** to FARM AND FIRESIDE and we will send you one of these 20-Inch Cloth-Doll Cut-Outs.

Pearl Necklace



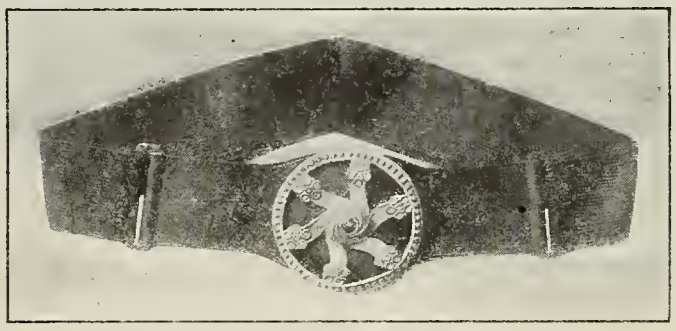
No. 167

Nothing is prettier or daintier than a Pearl Necklace, and this Necklace is the prettiest of all pretty necklaces in the market. It is made in the popular pendant style and fastens in the back with a patent clasp. The pearls are lustrous and highly polished, and while the necklace has a massive appearance, it is really so light that the weight is hardly noticeable.

OUR OFFER

Send us but **four subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, this pretty Pearl Necklace.

Silk Elastic Belt



No. 165

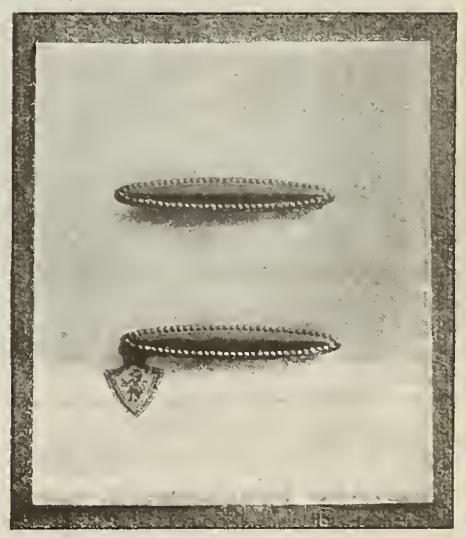
Here is another unusual design. The ornament on this belt is Etruscan finish, in green and gold, and in pattern is exclusive and rich. The belt proper is of fine dressed leather, but an unusual feature is the silk elastic webbing fitted in the back that permits the belt to be worn without adjustment and insures an exact fit at all times.

OUR OFFER

Send us **four subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, this Elastic Adjustable Belt.

Baby or Beauty Pins

These Gold-Plated Warranted Baby or Beauty Pins are just the thing for the baby's dress, the girl's waist or the woman's shirt-waist. They are plain Roman gold and are warranted to last a reasonable time.



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Send us only **two subscriptions** to FARM AND FIRESIDE and we will send you, post-paid, a set of these Gold Beauty-Pins. Or, send us **three subscriptions** and we will send you **two complete sets** of the pins.

Subscription Price to FARM AND FIRESIDE: One Year, 35 Cents; Two Years, 50 Cents; Four Years, $1.00

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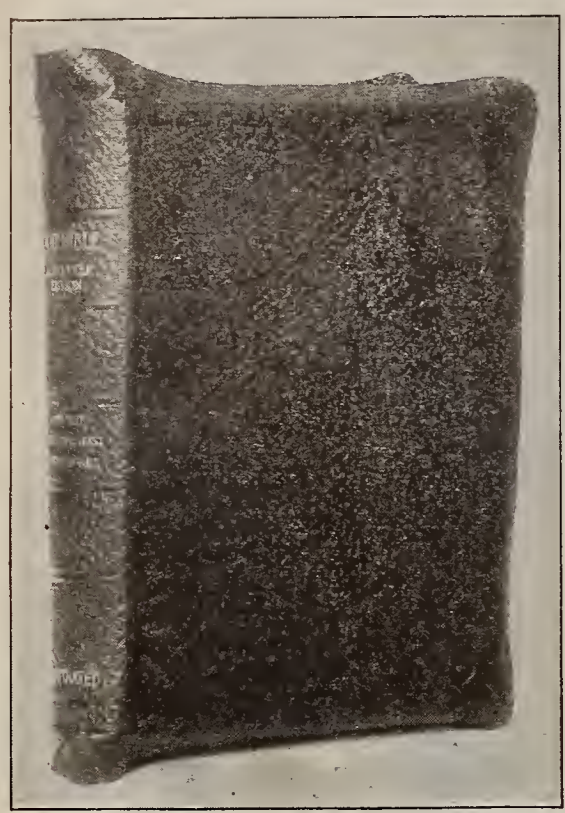
Bibles

Morocco-Bound Teachers' Bible



No. 143

The important feature of this large-type, self-pronouncing Teachers' Bible is **the words of Christ printed in red.** This means that when you wish to refer to the Master's utterances you can immediately identify them without a lengthy and tiresome search. Beside this, the Bible contains 17 Full-Page Illustrations, 12 Colored Maps of the Holy Land, 64 Etchings and Cuts, Illustrated Bible Helps, Subject Index, Complete Concordance, and many other desirable features too numerous to mention. This is a Divinity Circuit style Bible, 5½x8 inches in size, and bound in full Morocco Leather. In all, this is the most complete, accurate and interesting Teachers' and Students' Bible on the market.

OUR OFFER

Send us **ten subscriptions** to Farm and Fireside and we will then send you, post-paid, this elegant Teachers' Red-Letter Bible.

Old Folks' Home Bible

No. 146

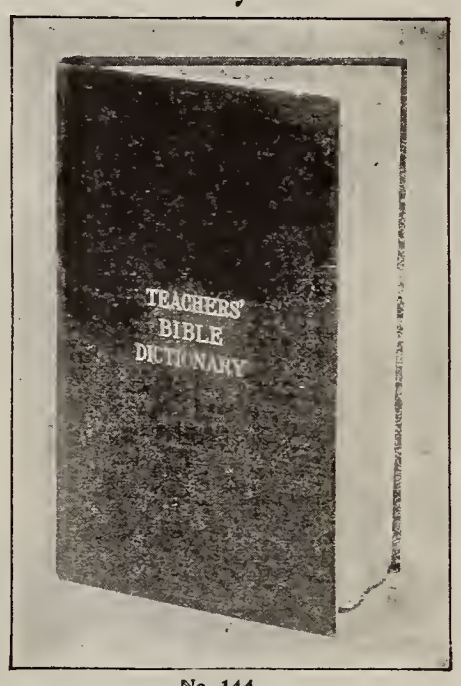
This Old Folks' Family Bible with its **large, plain print,** will gladden the hearts of our older Bible readers. This Bible contains 1,246 pages, a Family Record, 12 Large Maps in Colors, and 23 Full-Page Engravings. There is also a full and complete selection of center references to parallel and illustrative passages, as well as a complete index to the maps and plans, by the use of which over 1,000 towns and localities can be quickly and easily located. The Bible is 8x11 inches in size and is beautifully and substantially bound in Full Morocco Leather. The type in which this Bible is printed is particularly suited to such readers as have defective or impaired eye-sight. Summing up, we have no hesitancy in stating that this is without doubt the finest Old Folks' Home Bible on the market.

OUR OFFER

Send us only **fifteen subscriptions** to Farm and Fireside and we will send you, charges paid, this large Family Bible.

Teachers' Bible Dictionary

This Pocket Bible Dictionary is a fitting accompaniment to the excellent Bibles that we are offering. It is handsomely and substantially bound in cloth and contains 258 pages of comprehensive and exhaustive Bible truths and helps. The definitions are clear and terse, and with the explanations given, reveal wonderfully the mysteries and beauties of Bible diction. With this dictionary at hand the Bible teacher or student is enabled to obtain a clear and comprehensive insight into the hidden lessons and allegories of that wonderful book, the Bible. Then, too, a great advantage of this valuable little book lies in the fact that it can be carried in the pocket or bag. Thus, it is always conveniently handy. Every Bible teacher should have this book.



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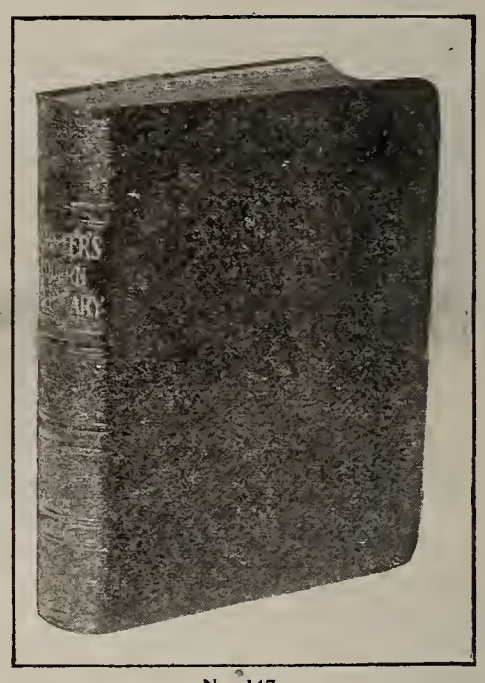
OUR OFFER

Send us only **two subscriptions** to Farm and Fireside and we will send you, post-paid, this Pocket Bible Dictionary.

Morocco Self-Pronouncing Dictionary

Webster's Modern Dictionary, revised and edited up to date, is the standard work for home, school and office; in fact, for any use to which a dictionary can be put. This dictionary contains over 100,000 words, definitions and synonyms, and is in every way as thorough and complete as any abridged dictionary printed. In size the dictionary is 6½x8 inches and is bound in Full Morocco Leather. It contains 480 pages, teeming with information and instruction. Every person who is desirous of writing or speaking clear, grammatical English, or wishes to read understandingly, and discriminatingly, should own and use an authentic dictionary. Webster has been the standard for many years. That's why we selected this dictionary for the people.



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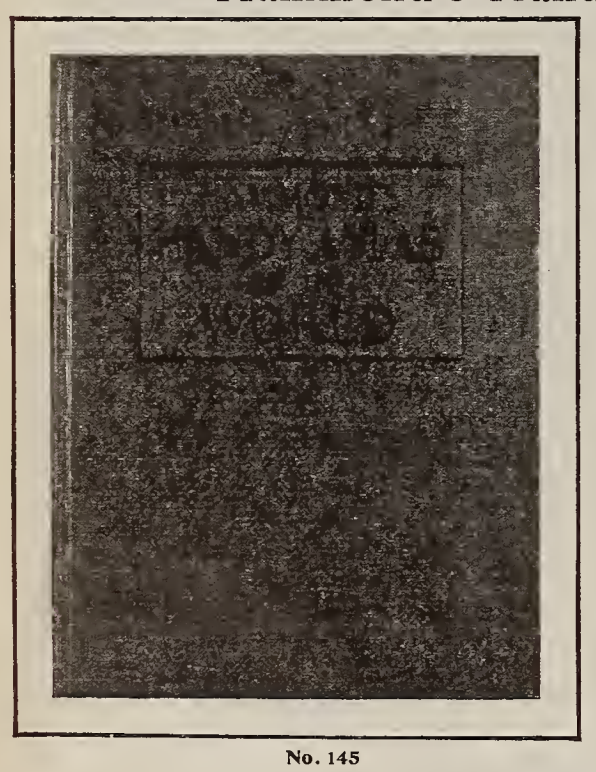
Hammond's Handy Atlas



No. 145

We now offer the latest edition of Hammond's Handy Atlas of the World, revised up to date. This book is substantially bound in cloth and contains over 100 pages of definite, interesting information about every country in the world. Seventy full-page maps, flags of all nations, important ship routes, distances between ports, location and population of the world's largest cities. There are maps of all the foreign countries and of the arctic and antarctic regions, as well as individual maps of each state in the Union, all authentically printed in colors. These are only a few of the features of this Atlas. The size is 6x8 inches, and from cover to cover the book is crowded with interesting and instructive information.

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Send us but **two subscriptions** to Farm and Fireside and we will then send you, post-paid, a copy of this Handy Atlas.

Ten Entertaining and Instructive Books

No. 148

READ THIS LIST

The Candy-Maker, Tells how to make candies at home.

Casey's Recitations and Comic Songs, A book of Irish songs and stories.

Cushing's Manual, An authority on parliamentary law.

Elite Letter-Writer, How to write social and business letters.

Hunters' and Trappers' Guide, A manual of the hunters' art.

Madame Juno's Dream Book, The significance of dreams.

March's Dialogues and Speeches, For entertainments and societies.

Mason's Fancy Drills and Marches, For schools, churches and societies.

200 Standard Recitations, Just the thing for young speakers.

Wilford's Dialogues for Young Folks, A comprehensive book of dialogues.

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VOCAL Music Folios INSTRUMENTAL

Old-Time and Popular Songs

No. 149

This is an era of song-writing, and modern composers are turning out many catchy and inspiring songs. But, after all, the old-time songs are the ones that reach the heart. These portfolios contain all the old-time favorites. There are Famous American songs, Songs of the Sunny South, Home Songs, Parlor Songs, Good Old Songs, Sacred Songs, and others. These are the songs that we all know and always hear with pleasure. They cannot be sung too often. Each portfolio contains from ten to twenty selections, embracing the songs that we all love and have so often sung. An evening at the piano or organ with these songs before you will bring back old recollections and sweet memories, or if you are of the younger generation you will have the pleasure of listening to the most tuneful melodies ever written. Then, too, there are the patriotic songs of the North and South, the stirring airs that quickened the pulse of our fathers and fed their patriotism. Each portfolio has an attractive cover, in colors, and is substantially made.

OUR OFFER

Your **choice of any one** of these Song Folios for only **two subscriptions** to FARM AND FIRESIDE. Or, we will send you **any two Folios for three subscriptions,** all charges paid.

Standard, Classic and Popular Piano Pieces

No. 152

This collection of Piano Pieces embraces all grades of compositions, from easy to difficult, and contains all classes of selections for the accomplished pianist as well as the student and teacher. Each Folio contains at least ten selections.

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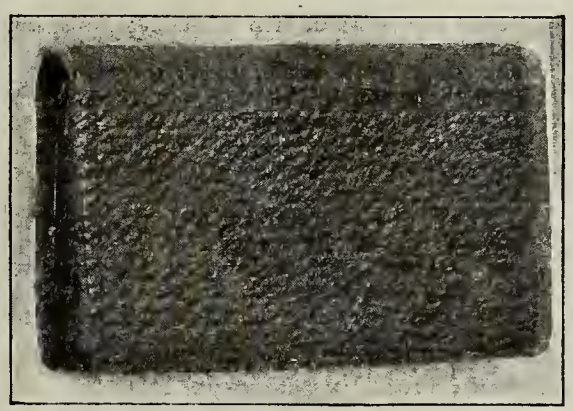
Ladies' Seal-Grain Pocket-Book


No. 150

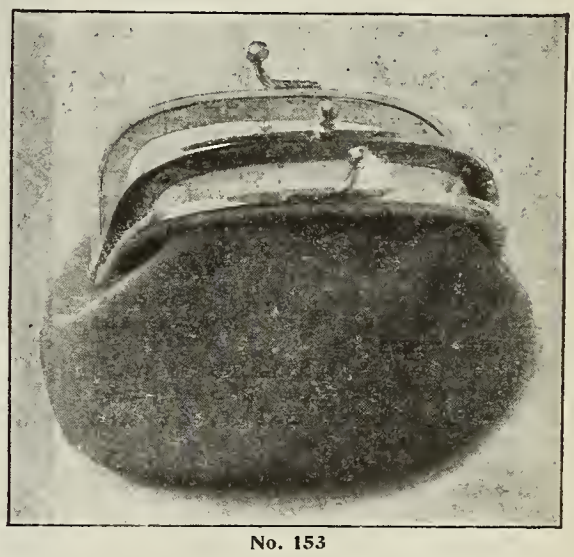
A pocket-book is at all times one of the most acceptable of presents. This Seal-Grain Pocket-Book is an extremely desirable article and one that will prove useful and durable, either for your own use or as a gift to some friend. It is well made and lined throughout, and has the usual compartments for silver, bills and cards. This pocket-book is substantially made, and with proper use will last a lifetime. It has all the appearance of real seal leather and in every respect is a stylish and handsome article. We are proud of this pocket-book and consider ourselves very fortunate in securing it for use in this catalogue.

OUR OFFER

Send us only **four subscriptions** to FARM AND FIRESIDE and in return we will send you this Seal-Grain Leather Pocket-Book.

Men's Sheepskin Purse

Here is a substantial, durable purse for the man. This purse is made of stout sheepskin, and is well sewed and strong. It has two compartments for currency and bills and is just the thing for every-day use. The purse is much larger than the cut, twice as large in fact, and is an ideal article for the farmer's use.


No. 153

OUR OFFER

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Ladies' Seal-Grain Bag

No. 151

This Seal-Grain Leather Hand-Bag is beyond doubt one of the most useful and valuable articles of the many shown in this catalogue. We shall not attempt to tell you the uses to which this bag can be put. Only a woman knows that. We will say, however, that this bag is a handsome, serviceable article and a decided addition to any woman's appointments. It has the appearance of real seal, is lined throughout, and contains a smaller seal-grain pocket-book for currency. This Hand-Bag is positively one of the best values offered by us. It is our honest opinion that of all the articles for the ladies' use shown in this catalogue none will prove so popular as this Hand-Bag. This is the bag that is extensively used by ladies of fashion everywhere, and we are assured by the manufacturers that the demand this season is greater than ever. This, together with the fact that the bag is large and roomy, should recommend it to every woman who desires a serviceable as well as stylish Hand-Bag.

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No. 154

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The Double Test

A Christmas Story—By May Ellis Nichols

Illustrated by L. F. A. Lorenz

STANLEY ROBERTS tossed aside the evening paper that he had been pretending to read and pulled out the letter that he had already re-read several times. It ran:

DEAR MR. ROBERTS:—

Will you come to a Christmas Eve dinner with us to-night? It is to be strictly *en famille* except that I hope Elizabeth will be here. She thinks that she cannot come, but I am sure that I can persuade her, though you may have to take her down to something or other that she has set her heart on when its time for me to kiss the babies good-night.

I know the invitation is a late one, but I was not quite sure whether Don had the mumps or not. The doctor assures me he is all right, and hoping that you are the same and that we shall see you at seven, Hastily,

MARJORIE LELAND.

Roberts smiled as he read. All the winter it had been so evidently a case—not of a managing mama, but of a managing sister-in-law—that this, her last little intrigue, amused him mightily.

To be sure, he had been a willing victim, for Elizabeth Leland was very fair to look upon and the best of good companions. So during the winter he had accepted Mrs. Leland's invitations to dances and drives and dinners, and hardly a day had passed without his seeing her husband's sister, Elizabeth.

Stanley Roberts, lone bachelor that he was, felt that he ought to consider himself a very lucky fellow. Of course he would go. He had already telephoned Mrs. Leland to that effect. Of course, also, he would take advantage of the opportunity that he did not doubt Mrs. Leland was making for him, and he would ask Elizabeth the question that had been on his lips several times the past week.

But even as he took this resolution the chain of his destiny was being forged in a way far different from what he expected. The first link was connected with his telephone. Its "ting-a-ling-a-ling" broke in upon his reverie.

Rising hastily, he took down the receiver.

"Yes, 610 Fairview. Yes, this is Stanley Roberts. Who are you?"

"David Brooks," came from the other end of the wire.

"Oh, is that you, Brooks! How are you, old boy?" Roberts' tone held a warmth that few suspected him capable of. "Anything I can do for you?"

"Yes, there is; that's why I called you up. I'm sorry to ask it, but I'm in a tight place. I was to be Santa Claus to-night at our mission, but I've got to conduct a funeral. Could you come down and be Santy?"

"Be Santy! Bless my heart!" Roberts' voice spoke his dismay. "Give things to the kiddies, do you mean?"

"Exactly. Put on a fur coat and a mask with a white beard, distribute the candy and talk a little chaff to the infants, it's only the kindergarten department, you know."

"Sorry, Dave," he said, "but I don't see how I can come very well. The fact is, I'm dining out."

"I'm sorry, too. I don't know of any one else I can get. You couldn't possibly let the dinner go this time, could you? Dining out can't be a great event to you."

"Certainly not; it isn't the dinner I care about." The tone was regretful, but not uncertain. "You see it is a positive engagement."

"Oh, yes, of course I understand. You couldn't disappoint your hostess. Well, good-by."

The receiver clicked from the other end and Roberts hung his up, too, but instead of starting to dress he dropped into his luxurious leather-cushioned chair and sat drumming idly on the table. That remark of his friend's, "Dining out can't be an event to you," was a sermon in a nutshell, an unconscious one that went home.

No, dining out, even with Elizabeth, was not such an event to him as was this Christmas entertainment to these children, and his own childhood was not so far distant but that he realized how disappointed they would be should Santa Claus fail them. Then, too, he was fond of David Brooks and would be glad to do him this favor. They had been good friends in college, and when Brooks had come to New York two months ago to work on the East Side, he had thought to see him often. He had fully intended to aid him, not only financially, but by his personal efforts, but he had been so engaged with his own affairs that he had neglected to do so. Here was the chance to make up for his neglect and to give a little real help.

"I'm half tempted to go down, after all," he was talking to himself now.

He rose and, going over to his mantel, took down the snapshot of a group on the steps of the country club.

For a full minute he studied one face, a face full of vitality and charm even in this unsatisfactory likeness.

The eyes of the photograph met his with the frank, merry look that he knew so well, but whether they were approving of his plan or enticing him from it, he could not tell.

"They say one can never tell how a woman will take a thing, but if you are a real woman you'll be glad I went down to save the kiddies from being disappointed."

"Perhaps," he had replaced the picture now on the mantel, but stood looking gravely into the laughing eyes, "perhaps it is just as well for me not to see you to-night, anyway. I might be a cad if I don't look out. But I'll oblige David, anyway."

It was a sudden freakish decision, but he acted on it at once. He looked up Brooks' telephone number and caught him just as he was leaving the house. He would give up his dinner engagement, he told him, and be Santa Claus. Then he called up his chauffeur and ordered his car. In ten minutes he was on his way.

When they drew up at the door of the little mission house, Brooks was waiting for him, and hurried him into a side room to don his regalia.

"I don't know what I should have done if you had not consented to come, old man. I'm depending on you to give these children the time of their lives. Put on your togs, you'll find everything in the closet. I'll go out and get things started."

Left to himself, Roberts opened the closet door, and had just pulled out the bearskin coat, when he became conscious that all the chatter in the room outside had suddenly stopped. Then, through the silence, a voice, thrillingly clear and sweet, began the old, but ever new

"Hark! the herald angels sing,
Glory to the new-born King!"

"At last she flung wide the door, and the line rushed through"

That voice! Could he be mistaken? Yet what could have brought Elizabeth Leland here? At that moment Brooks hurried in.

"Can I do anything to help you before I am off?" he asked.

"Yes. Tell me who is singing in the other room."

"Oh, that is Miss Leland. Miss Elizabeth Leland. She is from your part of the town. Do you know her?"

"Yes, I certainly do. Does she come often?" he questioned eagerly.

"Two or three times a week, and she is a great help, knows how to do everything—sing, cook, play the piano, sew—anything. But you had better hurry out there, or the children will think Santa Claus has forgotten to come." The voice had ceased now, but the children were not satisfied.

"More, more!" they clamored.

Again the wonderful voice, this time in Phillips Brooks' matchless lyric, "O, little town of Bethlehem!"

The two men stepped softly to the door, and stood breathless spectators of the scene before them. Roberts quite forgot the part he was to play in the next few minutes, while he gazed spellbound at the girl on the platform.

Hitherto he had seen her either in elaborate evening gown or tailor-made suit of the most approved cut and finish, but to-night she wore a plain little dress of some dull blue woolen stuff, unrelieved except by the bit of lace at neck and sleeve.

Roberts drew a quick deep breath. Had he been fool enough to imagine for one instant that this girl was lacking in real womanliness? Surely Providence had interfered in his behalf to show him her real character. He had never dreamed she could be half so sweet, so lovable, so altogether desirable. His eyes turned involuntarily to Brooks. He, too, was spellbound by the beautiful voice, by the strange sweet beauty of the girl before them. Roberts felt an awful fear grip his heart. Perhaps Elizabeth cared for this splendid fellow. Perhaps he was already too late.

It seemed as if he must go to her at once and ask her the question. He made a sudden unintentional move, and the bells around his neck tinkled. Instantly he heard cries of "Santa Claus! Santa Claus! He's coming! He's coming!"

He knew that this should be his cue, and so he made his way through an improvised fireplace out before his audience of excited, happy children.

But to him there was really one auditor. She sat in the front row, so near he could have touched her by stretching out his hand. Would she know him? The question was soon answered. At the first sound of his voice she started, her tell-tale face speaking surprise, incredulity, full recognition. Then she sank back and sat perfectly quiet, her hands clasped in her lap, the colored lights from the tree making a rainbow halo about her head, and the sea of upturned little faces forming an angelic background like that of a Murillo Madonna.

There she sat, smiling mischievously as he babbled on about sledges and reindeer and his paternal interest in good children, while the little ones listened in wrapt silence, broken now and then by an unconscious ecstatic giggle.

Suddenly Roberts became aware of a subdued uneasiness among the children, a restless, subconscious movement, like the stirring of forest leaves before a storm. They were still watching him and listening to his nonsense, but there was a constant turning and twisting of little bodies, two or three coughed. He had just realized it, when the tot that sat by Elizabeth leaned against her and asked in a whisper loud enough for him to hear,

"What's that queer smell, Miss 'Lizabeth? It chokes me."

Even before Elizabeth took in the significance of the question, Roberts had perceived the "queer smell," too, and a vise seemed to clutch his heart. It was the smell that makes the little wood animals flee in terror—the smell of smoke.

His first impulse was the natural one, to instantly give the alarm, but responsibility gave him a wiser second thought. Two hundred helpless little children were dependent on four adults for safety, probably for life itself. He must act at once, but how?

It was not left for him to decide. Elizabeth had sprung to her feet, white, but smiling.

"Please, Mr. Santa Claus," she said, "we're tired of sitting still so long. We want to march down in line, away out of doors, and look to see if your reindeer are still on the roof."

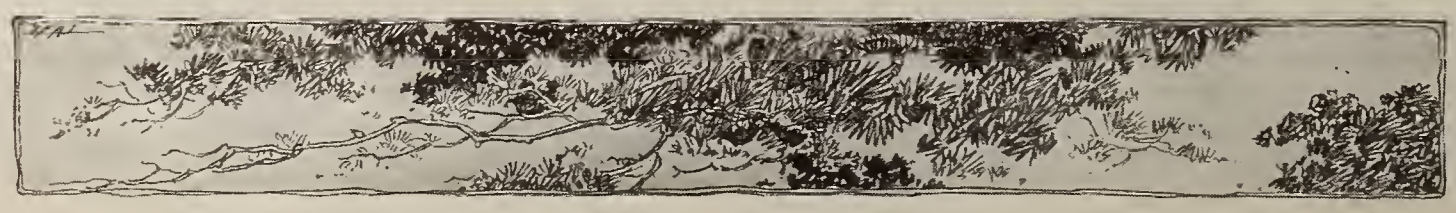
A murmur of disappointed protest rose from some of the children. The two other young teachers looked surprised and one even vexed. It was evident that it was to be a quick, sharp contest of will and personality. Roberts longed to be of assistance to the brave girl, but did not see just how to do it.

Elizabeth turned to the room and looked the other teachers straight in the eye. Her clear, sweet voice took on the least shade of stridency as it rang out her commands.

"Miss Denton, you shall lead the littlest folk first, straight down the stairs, through the front door, out to the street. Don't stop till you get to the corner. Miss Wray, you may lead Division B., and I'll look after the rest. Now, all together, rise."

There had been perfect attention while she spoke. Now in the silence that followed, Roberts heard, or fancied he heard, a crackling sound, and trembled lest the children should hear it, too. So much depended on their not realizing their danger! Would they obey? He saw that his opportunity had come—a humble, but necessary, part. He broke into a rollicking popular air in march time, marking the rhythm with hands and feet. Involuntarily,

[CONCLUDED ON PAGE 25]



Christmas Poems

Christmas Carol

BY PHILLIPS BROOKS

The earth has grown old with its burden of care,
But at Christmas it always is young.
The heart of the jewel burns lustrous and fair
And its soul full of music breaks forth on the air
When the song of the angels is sung.

It is coming, old earth, it is coming to-night!
On the snowflakes that covered thy sod
The feet of the Christ-child fall gentle and white,
And the voice of the Christ-child tells out
That mankind are the children of God.

On the sad and the lonely, the wretched and poor,
The voice of the Christ-child shall fall;
And to every blind wanderer open the door
Of a hope that he dared not to dream of before
With a sunshine of welcome for all.

The feet of the humblest may walk in the field,
Where the feet of the holiest have trod.
This, this is the marvel to mortals revealed,
When the silvery trumpets of Christmas have pealed
That mankind are the children of God.

At Christmas-Time

BY JAMES MONTGOMERY FLAGG

At Christmas-time, so runs the Rhyme,
'Neath Mistletoe and Holly,
A Man may kiss a pretty Miss
When otherwise 'twere Folly.

He'll bless the days when Sylvan Fays
First wrought the waxen Berry,
For Mistletoe and Kisses go
To make a Christmas Merry.

A Christmas Song

BY FLORENCE EVELYN PRATT

Oh, Christmas is a jolly time
When forests hang with snow.
And other forests bend with toys
And lordly Yule-logs glow.
And Christmas is a solemn time,
Because, beneath the star,
The first great Christmas Gift was given
To all men near and far.
But not alone at Christmas-time
Comes holiday and cheer,
For one who loves a little child
Hath Christmas all the year.

Auntie Brown's Christmas Shopping Advice

BY ALICE JEAN CLEATOR

The morning after Christmas Day
I met my Auntie Brown.
She carried packages galore
And was en route down-town.

Said she, "To see me out to-day
You seem to think is strange,
But listen, niece, each gift I gave
I'm taking to exchange.

"The slippers which I bought for John
Were just three sizes small.
The smoking-jacket was too large
For Uncle Percival.

"And, oh, the gloves for Cousin Sue
Should have been number six;
I ordered them with Johnny's skates,
And got the sizes mixed.

"And Rob's fur cap was so immense
It quite obscured his face;
The rings and bracelets were too small
For Marjory and Grace.

"Well, I must go," she sighed, "but, niece,
Whene'er you give surprises
Of Christmas gifts, don't ever give
A thing that comes in sizes."

God Rest Ye, Merry Gentlemen

God rest ye, merry gentlemen; let nothing you dismay,
For Jesus Christ, our Savior, was born on Christmas Day.
The dawn rose red o'er Bethlehem, the stars shone through the gray,
When Jesus Christ, our Savior, was born on Christmas Day.

Bells Across the Snow—A Christmas Hymn

BY FRANCES RIDLEY HAVERGAL

O, Christmas, merry Christmas!
Is it really come again,
With its memories and greetings,
With its joy and with its pain?
There's a minor in the carol,
And a shadow in the light,
And a spray of cypress twining
With the holly wreath to-night.
And the hush is never broken
By laughter light and low,
As we listen in the starlight
To the "bells across the snow."

O, Christmas, merry Christmas!
'Tis not so very long
Since other voices blended
With the carol and the song!
If we could but hear them singing
As they are singing now,
If we could but see the radiance
Of the crown on each dear brow;
There would be no sigh to smother,
No hidden tear to flow,
As we listen in the starlight
To the "bells across the snow."

O, Christmas, merry Christmas!
This never more can be;
We cannot bring again the days
Of our unshadowed glee.
But Christmas, happy Christmas,
Sweet herald of good-will,
With holy songs of glory
Brings holy gladness still.
For peace and hope may brighten,
And patient love may glow,
As we listen in the starlight
To the "bells across the snow."

Old Christmas Returned

(OLD CAROL)

All you that to feasting and mirth are inclined,
Come, here is good news for to pleasure your mind,
Old Christmas is come for to keep open house;
He scorns to be guilty of starving a mouse.
Then come, boys, and welcome, for diet the chief
Plum-pudding, goose, capon, mince-pies and roast beef.

The holly and ivy about the walls wind
And show that we ought to our neighbors be kind,
Inviting each other for pastime and sport,
And where we best fare, there we most do resort;
We fail not of victuals, and that of the chief
Plum-pudding, goose, capon, mince-pies and roast beef.

All travelers, as they do pass on their way,
At gentlemen's halls are invited to stay,
Themselves to refresh and their horses to rest,
Since that he must be Old Christmas's guest.
Nay, the poor shall not want, but have for relief
Plum-pudding, goose, capon, mince-pies and roast beef.

While Shepherds Watched

BY NAHUM TATE

While shepherds watched their flocks by night,
All seated on the ground,
The angel of the Lord came down
And glory shone around.

"Fear not," said he (for mighty dread
Had seized their troubled mind);
"Glad tidings of great joy I bring
To you and all mankind.

"To you, in David's town, this day
Is born of David's line
The Savior who is Christ the Lord;
And this shall be the sign:

"The heavenly Babe you there shall find
To human view displayed,
All meanly wrapt in swathing bands,
And in a manger laid."

Thus spake the seraph, and forthwith
Appeared a shining throng
Of angels, praising God, and thus
Addressed their joyful song:

"All glory be to God on high,
And to the earth be peace;
Good-will henceforth from heaven to men
Begin, and never cease!"

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Miss Selina Lue and the Soap-Box Babies

By Maria Thompson Daviess

Illustrated by Ruth M. Hallock

CHAPTER IV.—The Wonderful Barn Loft

"They can't nobody tell what a mortgage and a golf club will do." —*Miss Selina Lue.*

"Now, Bennie, run home as quick as you can, for I know your mother is in a hurry fer the things. Here's the nickel head of cabbage. Put it under your arm, and take the sack of meal in your hand. See if you can't carry the potatoes on the other arm and the piece of bacon in your other hand. Instead of the sorghum molasses she sent for, I am going to send three-for-ten cakes of soap, fer she's forgot to buy a bit for more'n a week, and I am sure she would rather have it. My, what a load for a boy! Open your mouth for this ginger-snap, and go careful, but fast." And Miss Selina Lue steered the heavily-loaded youngster down the steps and started him toward home.

"Bennie"

As she came up again she paused and, resting her hands on her hips, leaned out to look far up the street. There was the shadow of anxiety on her usually unruffled brow, and she sighed as she picked Blossom out of the cracker-box and put her far back on the counter, hemming her in for safety with two brooms.

"I feel like I ain't seen Miss Cynthie fer a year," she said, "and it has been more'n a week since she came down. The cook comes after things and she says the child ain't sick, so I ain't got no cause to worry; but I'm jest hungry to see her. Seems like she is a kind of a frosted cake—the more you git of her the more you want."

"Yes, thick with frosting, and white and cold; it's good to—look at," remarked Mr. Alan as he seated himself on an upturned peck measure and reached to head Clemmie off from a pile of scrubbing-brushes she seemed bent on chewing.

"Well, I've got a feeling in my bones she'll come today, and I'm going to expect her anyway. Mis' Kinney's bones always gives her notice of trouble, but I've got mine trained so they ache fer the coming of good." Miss Selina Lue's wisdom was an unconscious adaptation of one of the principles of a very modern thought.

It was at the lull time at eleven o'clock, when the bluff dinners were all in the pot, and Miss Selina Lue could get a breathing spell until the afternoon rush for supper provender. The bluff bought supplies a meal at a time and brought the nickels and dimes in payment thereof. Miss Selina Lue had no need of a bookkeeper, she put her money in a cracked vinegar-jug behind the counter. Nor did she ever have enough to make bank deposits, as her stock was bought on much the same principle as that on which it was sold, a little at a time and cash down.

"For," she counseled her neighbors, "having on hand most of times means wasting, and the piece of meat oughter go in the pot according to what you know you oughter have and not what you think you want. Lots of folks stomiks ain't as greedy as they is."

Mr. Alan had come in for his dinner a little before the time. He spent most of his mornings down at the ferry sketching the roustabouts as they loaded the early boats; but when the wharf was deserted, he found it pleasant to come and chat with Miss Selina Lue as she prepared the simple meal he shared with her. He liked to watch the babies tumble and crawl about the grocery before their noon naps, for the floor and low-lying regions of the store offered unlimited opportunities for adventure to creepers, and it always interested him to see what they could manage in the way of exciting catastrophes.

Miss Selina Lue at such times fairly radiated good cheer and interest and he felt constrained to do likewise. In fact, Miss Selina Lue invited confidences as the sun invites the buds in the springtime, and her views of life were sound, if unusual.

The non-appearance of Miss Cynthia was uppermost in her thoughts, and she seemed possessed of an inexhaustible store of admiring anecdotes of that disturbing young person. There was in his mind a sneaking suspicion—nay, a shame-faced certainty—that his own presence was the cause of her seeming neglect of Miss Selina Lue, and his conscience hurt him. Bother the girl! Why should she pass him in the lane as if he were non-existent and manage to convey an impression of his utter obnoxiousness every time he so much as caught a glimpse of her in the distance? He was of her world and accustomed to the amenities thereof, and he was not in the way of being trodden under even a very pretty pair of "first family" feet. His pride rebelled. He was something of a "first family" himself, and was in the habit of receiving unlimited expressions of regard from the fair sex, especially those who were admitted through the sacred portals of his studio.

And, forsooth, what had he done to arouse such animosity? It really seemed an old-fashioned spell of jealousy over his place in the affections of Miss Selina Lue and the soap-boxers. He felt decidedly annoyed that any one should presume to question his rights in the River Bluff Grocery household. Indeed, he felt entitled to call himself a soap-boxer if he chose and—He was about to say so aloud when he was interrupted by a glad cry from Miss Selina Lue as she hurried down the steps and waved her hand to the inspiration of his disturbing thoughts, who was leisurely approaching from up the street, surrounded by a group of small adorers.

Bennie Dobbs, having deposited his packages at home, was backing before her with upturned, beaming face, and Luella Kinney and Ethel Maud pressed close to her side, while her arms held young Jim Peters, carefully regardful of his youngness. She was smiling at Bennie, who held a small and very active puppy up for her to see, and Ethel Maud and Luella were joining vociferously in her admiration of the recent Dobbs acquisition.

He was about to step to the door, really excited at the sight of so much animation, when suddenly he felt himself an alien and alone. Clemmie had crawled to the top step and was leaning out, enraptured at the uproar, and Blossom hung over her broom fence and gurgled at the glimpse she could get through the window of the high-held, squirming puppy. They had all forgotten him; he was a stranger who had no right even to look on at the triumphal return of the queen to her realm of babies and puppies, with smiling Miss Selina Lue and proud Mrs. Jim in the background. He seized his hat and sketching-kit and slipped out of the back door and off to the river, sore, and determined to go dinnerless, though not exactly deciding whom he would injure by such a proceeding. Bother the girl and bother the hat that toned in with her cheeks, and bother the eyes that toned with the sky!

As he disappeared behind the barn he heard Bennie's shrill voice high up in the scale saying: "Oh, Miss Cynthie, we've named him for Mr. Flarity 'cause he got him for us, but the first puppy he has we are going to give it to you."

"If it's a boy puppy you can name it for Mr. Alan, too," chimed in Ethel Maud, with boundless enthusiasm showing in the tone of her voice and shining through the dirt on her little face. "Ain't he just the cutest puppy?"

By this time they had arrived at the steps and were, figuratively speaking, in the hospitable arms of Miss Selina Lue, though young Jim soon occupied that position literally, as she seated herself on the steps the better to enjoy his company. She looked up at Miss Cynthia with shining eyes.

"Honey," she said, "I was thinking I had got to making you out in my mind prettier than you was, but I see it was t'other way round. Where have you kept yourself fer more'n a week?"

Miss Cynthia answered her from the top step where she had settled down in affectionate embrace with Blossom, whose flower head nestled against her friend's cheek with a contented little sigh. "I have been busy, Miss Selina Lue—and a little bit worried. I came down, hoping for a comfy time with you. You—you—always seem so busy—and—entertained these days that I—I—"

"Why, Miss Cynthie, child, whatever do you mean? I ain't never too busy for bothers to be told to me, and I always have been entertained from five o'clock, when I get up to shake up the stove and unlock the back door, until I put out the lamp at night. But night or day I want to hear everything you might have to say."

"I know you do, Miss Selina Lue, and I wanted to come, but—"

"Looks like they's a special sort of string tied 'twixt you and me, and my hungering for you must have drawed you this morning. I was just a-telling Mr. Alan— Why, where did he go all of a sudden? And Bennie and Ethel Maud and Luella after him, I'll be bound! If Blossom and Jim here could walk they would be hanging on him somewheres." Miss Selina Lue was intent on shifting of young Jim's swaddling-bands and failed to catch the expression on the fair face bent over Blossom's yellow head, which was anything but acquiescent.

"Is Blossom then so fickle a person that she only stays with me because she hasn't the locomotive powers to run away? Why, Miss Selina Lue, think of the affection I have—lavished on her!"

"Law, child, I was jest a-running on; but I guess Blossom is like the rest of women folks, a-follering the smiling eye of a man as far and as long as he'll let her. What ails Ethel Maud now?"

From around the barn appeared the three deserters, Bennie and Luella in the lead with Ethel Maud trailing sobbing behind. "Tain't nothing the matter with her," announced Bennie with scorn. "She's jest bawling 'cause Mr. Alan couldn't take us up the river with him. He says he ain't coming home till night, Miss Seliny Lue, and don't want no dinner or nothing."

"I believe he's mad 'cause we didn't name the puppy for him—boo—hoo—" wailed Ethel Maud, whose intuitions were most truly feminine.

"He ain't 'tall! Didn't you tell him that Miss Cynthie was a-going to name the one we're going to give her fer him? It was jest because you hung on his leg and cried so; I heard him say something about 'bothering girls.' So shut up and let's take the puppy down and see if Mr. Leeks thinks it's time to cut his tail off yet."

"Oh—ho—ho, Miss Seliny Lue, don't let him cut off his tail, please! What would the poor little dead tail do without the puppy? Oh—oh—oh—"

"Now, Ethel Maud, don't cry, honey. Bennie shan't cut off the puppy's tail until the time comes, and then you'll have to stand it like we all stand afflictions what has to come. Don't you want to carry Jim across the street to his mother? Will you be right careful with him?" Ethel Maud, instantly pacified, reached out and clutched the bundle offered her with an inarticulate, caressing murmur; Miss Cynthia gasped with remonstrance.

"Don't worry, child; Ethel Maud nurses every baby on the bluff regular, and I seen Mis' Peters let her tote Jim down to Spout Spring only yesterday. We bluff folks has to trust the babies to the good Lord a heap of the time, though I must say some of the mothers seem to leave 'em on His hands more'n is fair."

The children trooped down the street, and with a little sigh of absolute contentment the Blossom drooped her head on Miss Cynthia's arm and closed her long, fringed lids over her wondering baby eyes.

Miss Selina Lue tenderly regarded the picture the girl and the rosy baby made in the open doorway, and said as she moved a step nearer, "Honey, what's been a-bothering you? Would it help to tell me? Is your ma worse?"

"No, Miss Selina Lue, not worse; it's the mortgage again. Mr. Everston was out Monday, and he says the—the whole place will have to be sold. He has a good proposition from the land company, which wants to pave and improve the whole tract and push it on the market for us; but they must have the house too, for the situation is valuable and they can sell it to the golf club, which will insure the sale of all the lots. If we don't take their offer, it means we shall have to sell it all at a disadvantage and perhaps only make the mortgage. Mother refuses to decide it for herself and has left it to me. What shall I do? I don't want—to sell—my home, but there seems no way to keep it." Miss Cynthia's lips quivered, but her eyes smiled bravely down at Miss Selina Lue.

"Honey, my heart is jest a-aching fer you, but there ain't nobody can tell what a mortgage and a golf club will do. If worst comes to worst, we can build another room by tearing down some lumber offen the barn, and you can bring your ma right here to live with me. I would admire to have her." Miss Selina Lue made her offer with heroic eagerness, for she and the invalided Mrs. Jackson Page had failed to find the accord which existed between the grocery owner and the scion of all the Jacksons and Pages, albeit their few interviews had been marked by great cordiality for the sake of their common interest in the conductor thereof.

"Miss Selina Lue, you are a darling, and I would rather be a soap-boxer than almost anything; but we shall have a small competency if we sell now in the right way. It's giving up the home—I'm afraid it will kill her—she worries so."

"No, it won't, honey, not when she's got you—you'd be a set-off against any kind of trouble. Leaving a old home is a wrench, as I found out when I hitched up and started down from Warren County; and, Miss Cynthie, I left graves behind me that I might not never see again in this world. But it looks like the

[CONTINUED ON PAGE 34]

"She was smiling at Bennie, who held a small and very active puppy up for her to see"

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Merry Christmas Day

WHAT a queer, fantastic world this would be were it robbed of its illusions and sternly limited to such realities as may be weighed in earthly balances.

Have you kept your child heart, gentle reader? This is the question I wistfully ask as I look into your face to-day. It is a home question. Whoever keeps the child heart, in its innocence and faith, has heaven surrounding him all the way. Unless you and I have something of the child in us, we are not wholly what we ought to be as mother, father, sister or brother. The child has quick impulses, vivid imagination, happy fancies and rosy dreams. Have you these? Have I? If so, we shall slip our hand into the wrinkled old palm of Saint Nicholas, and step gaily forward with him, on the road, as he sets forth to give the world's children the best time in the year.

Christmas bells are ringing in every corner of the globe this year. They are mingling their melodies with the tunes the Hindu and the Japanese boy and girl hear. They are floating across Southern seas and penetrating Arctic zones. For us they ring as never before, and they are weaving sweet variations around "Home, Sweet Home."

The Christmas-tree with its starry tapers, the Yule-log with its crimson flame, the garlands of fir and pine, the aroma of evergreens, and the scent of roses, fragrant as in June, make Christmas a charm and delight. Other spices mix with these. Homely spicy perfumes of mince-pie and fruit-cake blend with the less pungent odors!

It is Christmas! You are glad. So am I. The children are happy, the sorrowful are cheered, the discouraged take heart of hope. Thank God for the coming again of the Christ-Child!

Preparing Christmas Surprises

The pleasure of Christmas begins weeks before the day itself, and of course lasts for weeks afterward. The stockings as they hang in a row near the fireplace tell the whole story of home life to the looker-on. From grandfather's to baby's, each stocking speaks of household affection and perfect confidence. That home is in little danger of disruption in which kindred and friends, father and mother, boys and girls, hang up their stockings on Christmas Eve. Here, as elsewhere, there must be somebody at the top. This somebody is usually the mother or the elder sister. No one in the entire circle is quite so helpless in the matter of selecting Christmas gifts as the father, who, having spent his years in the business of bread-winning, leaves the business of spreading honey on the bread to mother and the girls. The daughter of a merchant prince told me that it was pathetic to watch her father's indecision when holidays reminded him that he must make a present of some sort to his wife. "Daddy walks up and down the room," she said, "puckering his brow and shaking his head at every suggestion we make. 'I tell you, girls,' he exclaims, 'I don't know what under the sun to buy for her. Your mother has the privilege of choosing for herself whatever money can pay for; she knows how much I care for her; she knows, too, that if I start out on my own account to get her a present I shall certainly blunder shockingly.' It ends," the girl added, "in my finding out what mother would like, and acting as dad's agent in the affair." The office of adviser in general is an agreeable one to the home daughter, and she shows herself fully equal to its demands.

Where there is no stint in the matter of money it would seem as if the stockings might be crammed without much trouble. The beautiful thing about Christmas is that its fullest enjoyment is not dependent upon the money it costs. The girl with the scanty purse may do as well for her loved ones as the girl with the liberal allowance. Don't fancy for an instant that those who prepare before for Christmas, aided by a big bank account and a full purse, have much real advantage over those who must scheme and contrive to make a "Merry Christmas."

What Christmas is For

Henry Drummond wrote of love as the greatest thing in the world. Saint Paul, in a golden chapter said that love thinketh no evil, vaunteth not itself, is not puffed up, suffereth long and is kind. The little town of Bethlehem witnessed the incarnation of Love Divine when Mary cradled in her arms the Babe of Heaven. The chief use of Christmas is that it lifts us out of the region of low desires and mean motives to a higher level of serenity and unselfishness. It is the culmination of each swiftly passing year, and it fitly occurs when the year is near its close. If it did nothing beyond awakening us to the privilege of making others happy, it would be to us as an angel singing in our ears the melodies of heaven. Does it not give us a chance to make children happy, to sympathize with young people who have the road before them, and with old people who have earned the right to sit still and rest with folded hands after their long activity? Give what we may to the little ones at Christmas, its beautiful opportunity for us is to surround them with wholesome and natural pleasures, that all their days shall be happy and Christmas be only the shining clasp of each blithe year. No one can rob any human life of the precious gift of a happy childhood. Its afterglow will fall on the maturer life with a benediction. MARGARET E. SANGSTER.

Arrows of Happiness

The flowers of happiness are watered by smiles.

Smiles are sunbeams chasing sorrow from our lives.

The volume of our happiness depends largely on our efforts and ability to make others happy.

Happiness is a contagious disease, the germs of which should be spread throughout the world.

A smile and a "thank you" for each courtesy shown will give us joy and win for us the esteem that cannot be purchased with silver or gold. W. E. W.

The Source of Good

EUGENE C. DOLSON

No life is void of happiness
If yet its work congenial be;
And half the secret of success
Is tireless zeal and industry.

Cheerfulness

CULTIVATE a cheerful disposition; endeavor, as much as lieth in you, always to bear a smile about with you; recollect that this is as much a command of God as that one which says, "Thou shalt love the Lord with all thy heart."

Let us take the pure gold of thankfulness and the jewels of praise, and make them into another crown for the head of Jesus.

When it is the Lord's work in which we rejoice, we need not be afraid of being too glad.

Cheerfulness is most becoming in Christian men.

Contentment is the crown jewel of a happy life. CHARLES H. SPURGEON.

The Double Test

[CONTINUED FROM PAGE 22]

automatically, a tribute to the discipline of our great public system, every child was on his feet; every eye was fixed on Elizabeth's face. Even the rebellious young teacher bent to the stronger will and took her appointed place.

"Turn! Mark time! March!" rang the commands, and each one was obeyed.

Such creeping, stumbling, slow little feet as went down the stairs first! Almost babies they were, used to a supporting finger, and they could not be hurried. Miss Denton understood now and was doing her best to help them down, but Miss Wray, a nervous, characterless girl, had slipped past the line of children and was fleeing down the stairs. She could not be trusted even to give the alarm.

Roberts' song drowned the crackling of the flames, but the air was becoming dense. He knew that the older children could not long be kept in ignorance. What if there were a panic, and they stampeded before the tots were down?

"It's a name that shame has never been connected with," Roberts' rich bass rolled out in great rollicking waves of sound. The last "B" disappeared through the door, and the older ones, the last division, were ready to move, when the shrill cry of "fire" and the heavy roll and clang of an engine came from the street below. Roberts could control his anxiety for Elizabeth no longer. Tearing the mask from his face, but still keeping the time and the rhythm, he sang out.

"Head the line yourself, Elizabeth, and march down!"

She understood, for she turned and shook her head. At the same moment one of the children took up the cry of "fire" and the last line made a rush for the door. She was there before them, closed it and stood with her back against it, holding them at bay. There were perhaps forty of these children, eight or ten years of age. Elizabeth knew them all and called each one by name.

"Stop, every one of you! I will open the door just as soon as the stairway is clear. Jack, for shame, a great boy like you crowding little girls. Go to the back of the line. Listen, listen to me. You are safe if you obey. Keep your line close, and stay in your own place. The one who crowds shall go last. All keep time! All clap! Tessie, you are not clapping."

The man on the platform knew that she could not hold them long. It seemed an age, an eternity. Would she never open that door! His voice was almost choked; he realized that he could keep up the singing only a moment more. At last she flung wide the door, and the line rushed through.

As Roberts stumbled forward, he felt the platform give beneath his feet, the crackling grew louder, a great cloud of smoke burst forth and enveloped him. He plunged through it, keeping his eyes on Elizabeth's white face, which in his bewilderment he fancied a star, his star of Bethlehem he told himself at that supreme moment, and for him it was no sacrilege.

He tried to call to her that she must not wait, but he only succeeded in making a strange gurgling sound. Then—he could not be mistaken—she was moving, not away, but toward him. He motioned her back, but on she came. She had caught both his groping hands.

"Oh, can't you hold out just a moment longer!" she implored.

Again he tried to speak, but could only clutch at her outstretched hands and stumble on toward the wide-open door. At the top of the stairs came a swift, strong rush of air. Involuntarily they stopped and let its glorious life-giving power envelop them.

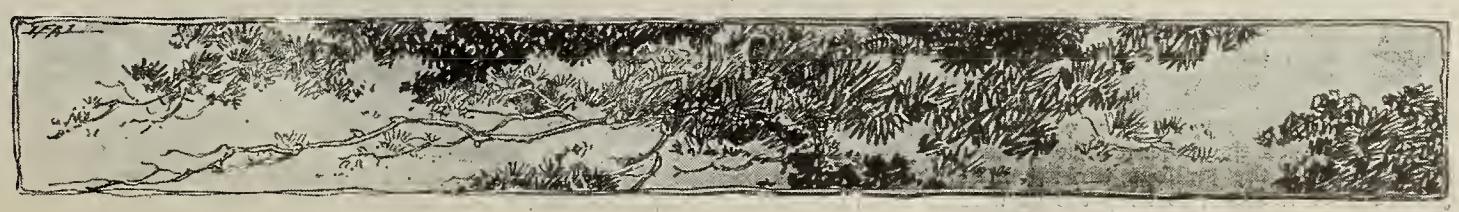
"Elizabeth," he could only whisper, but she heard him, "you brave, brave woman, tell me—do you—can you—care a little—"

She smiled and nodded her head.

"I thought so when you stood there giving those youngsters such a happy time, but when I saw you in the smoke and fire," she shuddered and came a little nearer, "then," she was half sobbing now, "then I knew."

In spite of the crowd that was surging just below them, Roberts drew her close into his arms.

"It was a double test, dear. I'll tell you about it sometime, but it has proved us both 'as by fire.'"



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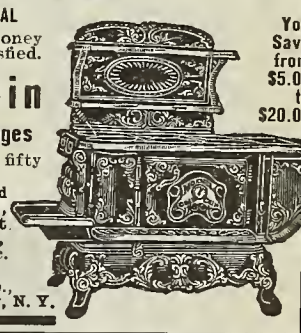

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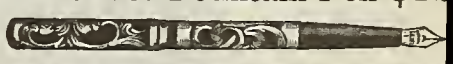

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Christmas Gifts to Make at Home

By Emma L. H. Rowe

Original Doll-Baby Pincushion for holding scarf-pins and brooches

With the approach of the holiday season comes the desire to remember friends and dear ones with some token expressive of love and good-will. The gift may be inexpensive or costly, in proportion to the contents of one's purse; the thought is what really counts with the appreciative and right-minded individual.

Many attractive articles which cannot fail to please can be made at home from simple materials. Indeed, these same articles if displayed in the art-shops of some city would astonish one with the price placed upon them.

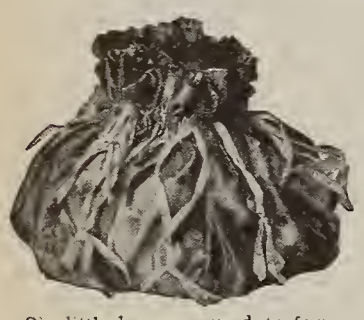
Odds and ends of silks, satins, ribbons and laces can always be utilized; while flowered cretonnes, soft sateens, dainty dimities, left-overs of wall-paper, crash, denim, linen, and so forth, are equally well adapted for Christmas use.

The articles here illustrated, while individually attractive, are also intended to be suggestive of what may be accomplished by the resourceful individual with the different materials already at hand or readily procurable.

This cute little pin baby for scarf-pins, brooches and cuff-pins is clothed in pink satin ribbon six inches wide, one half yard being required.

Cut off four inches, and recut from this piece, parallel with each selvage, a strip two and one half inches wide for the sleeves, which will leave a center strip one inch wide which should be folded and gathered together for the circular cap.

The pin baby should measure five inches from top to toe, and should be wound round about very amply with cotton wadding below the arms.



Six little bags are used to form this novel Work-Bag

To make the pin baby's gown, sew ends of the ribbon together. This seam will come at the center back. Cut small one-inch semicircles from the upper selvage three and one half inches from the back seam.

Make the two-and-one-half-inch strips into full sleeves, turning in and gathering the cut edge at the wrist; join the top of the sleeve to the semicircular edges, which will bring the selvage edge of the sleeve to the selvage edge of the little dress.

Gather dress tightly together at the neck and around the ankles. The pin baby will stand if plumped enough with cotton. It makes an acceptable Christmas gift and is extremely simple to make.

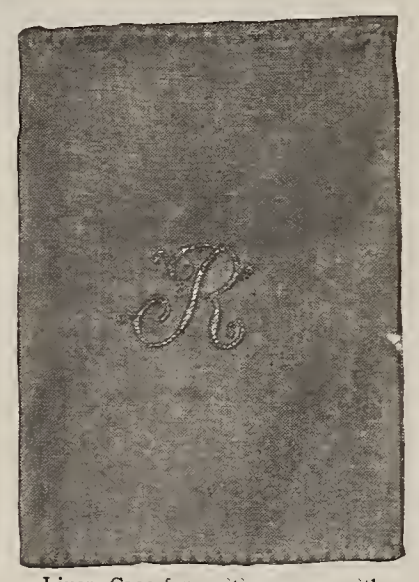
The useful compartment work-bag of flowered gray and rose silk with rose lining has not only a generous center to hold one's work, but six separate small compartments, or bags, for the various sewing materials or separate bits of work.

From cardboard cut a hexagon with sides measuring four and one half inches. Cover one face with flowered silk.

Cut a strip of flowered silk forty-eight by ten and one half inches, and a similar strip of lining silk. Place together. Gather evenly at the bottom edges and sew to the six-sided figure. Cover one face of another hexagon with rose lining and place over the first hexagon in order to cover up the raw edges.

Stitch from each point of the hexagon five and one half inches up through both silks, thus forming six little compartment bags. Cut both silks from the stitching to the edges; turn under raw edges and stitch neatly.

Next make a two-inch hem, outside silk and lining silk separate, at the top of each bag. Stitch on the machine. Make a second stitching one half inch above the first for the drawing ribbons. Each compartment bag should have two separate drawing ribbons working from opposite sides.



Linen Case for writing-paper with embroidered initial

While this work-bag is dainty and attractive, it might be made still more unique of plain material, say a linen of two shades, with the several compartments specifically marked: Buttons, Thread, Darning-Cotton, Hooks and Eyes, Silk, Needles and Pins.

Each desired word should be written in pencil across the compartment and worked in outline stitch in white or a contrasting color.

The bottom section of this work-bag can be made circular instead of hexagonal, and stitched into any number of sections. Any woman who sews can't help but appreciate this unusual and convenient work-bag.

This note-paper case of linen is particularly appropriate for the girl who is away from home and who perhaps "lives in a trunk."

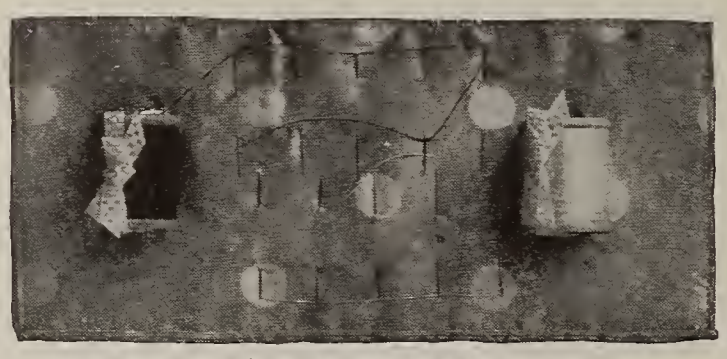
The case above illustrated is of cream linen canvas, with simple needlework in delft blue floss.

Cut a strip of canvas ten by twenty-five inches. Turn under and baste a quarter-inch hem entirely around the canvas. Then fold over into pockets, allowing one inch free space at the very center for folding.

Ordinary buttonhole or blanket stitch arranged in clusters of three (about one quarter inch deep) will effectively bind the case, will hold the center hems in place, will separate one half into sections for envelopes, and will ornament and at the same time attach the stamp pocket which should measure one and one half by three inches, plus hem and turned-under edges. A tiny brass ring, covered with buttonhole stitching and attached to the center inch space will hold the pen in place.

An initial in outline stitch on the outside of the case is a dainty addition.

Where one is not familiar with even these simple embroidery stitches, the case may be bound with straps of contrasting linen, braid or ribbon and be quite as attractive. Colored dress linen, with bandings of white or even with rows of machine stitching, will also be found very effective.



Emergency Sewing-Case with needles already threaded

Attractively arranged in a pretty Christmas box this note-paper case makes a charming little gift.

The sewing-case, illustrated on this page, shown open, is almost self-explanatory. It measures four by eight inches and has a thin interlining of canvas between the two layers of silk. The spools of black and white silk should be held loosely in place by baby ribbon previously sewed to the case.

A Sachet-Bag in the form of a wild rose

The needles, as you will note, are threaded and ready for immediate and hurried use.

Sometimes the spools will turn more readily if the ribbon be tied around the spool and not through the center hole as here shown. The case rolls up and is fastened together with baby ribbon.

No more dainty sachet can be made than the flower sachet here pictured, which may be developed in various colors according to the favorite flower.

For the wild-rose sachet, three quarters of a yard each of rose-pink and leaf-green satin ribbon one and one half inches wide will be required.

Cut the pink ribbon into equal lengths. At the middle of each length gather together finely and closely with needle and thread, and fasten off. Fold the ribbon at this line of gathering right side out, tuck in the edges for the space of an inch along the sides and blind stitch together, then overcast the rest of the distance. In each little bag insert a double layer of cotton, between the folds of which add the sachet-powder. Turn under the raw edges of each bag, gather closely together and fasten off. Sew the five rose-petals gracefully together and add little stamens of pale yellow embroidery-silk, using the French knot stitch. Or, yellow satin baby ribbon may be tied across the center two or three times with several tiny lops and ends.

Cut the green ribbon into five lengths. Fold each piece right side out; turn back each corner at the fold and fasten lightly together at the back with needle and thread. This will give the effect of a pointed leaf. Turn under and gather the raw edges of each leaf and arrange as a backing under the rose-petals. The leaves are not sewed into bags. The fragrance of the sachet is simply in the rose itself, which indeed is charming even without the green backing. These sachets are so nice to tuck under one's corset-cover, as they impart such a delicate and refreshing odor. They are also nice to put in the bureau to give a pleasing perfume to handkerchiefs, neck-bows, etc.

The hair-pin receiver of old-blue satin ribbon, a dainty trifle for my lady's dressing-table, is quickly and easily made from three quarters of a yard of ribbon three inches wide and twelve inches of very narrow lace.

Cut the ribbon in halves; place one across the other, with the centers even. Turn up the four ends of ribbon, and where they meet at the sides overcast for three and one half inches from the naturally formed corner. Make hems one and one half inches in depth inward toward the center of the box, or receiver. Finish the edges of the hems with a narrow edging of lace, the scallops turning inward; square the corners of the lace, to keep the corners firm.

Fill the receiver with a handful of curled white hair, which can be obtained at the upholsterer's, or fine excelsior will make a satisfactory substitute.

To hold the hair in the receiver, cross two strips of ribbon or cord diagonally at the center and sew at the corners.

For every-day use this hair-pin receiver is as necessary as the ever-present pincushion.

Strips of silk can be used instead of ribbon.

The collar-and-cuff box, made of cretonne and intended for one of the "lords of creation," is not only good to look upon, but it is also practical.

It is decorative enough for service on the chiffonier, it is low enough to be stowed away in one of the bureau drawers or it may be suspended from some accommodating hook—according to the desires of the masculine possessor.

Unique box-shaped Hair-Pin Receiver made of ribbon

Cut two strips of flowered cretonne eight and one half by thirty-four inches for the outside, this allows for a two-inch hem. Cut two strips of plain sateen eight and one half by twenty-seven inches for the lining.

Place one lining strip and one outside strip together, right sides in; stitch the long edges on the machine and turn inside out. Sew the two remaining strips similarly.

Cut a seven-and-one-quarter-inch square of pasteboard for the bottom, and four oblong pieces seven and one quarter by three and five eighths inches for the sides.

Slip the square of cardboard into one of the double strips until it reaches the exact center. Place the second strip crossways over it and stitch around the four sides of the square.

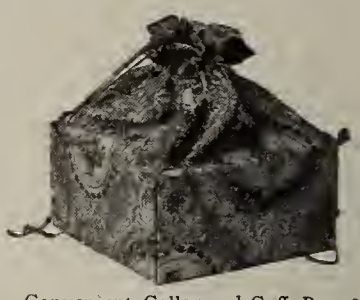
Next slip the four oblong pieces of pasteboard into the four sides until they touch the square, and stitch along their top edges.

Stitch the sides together in an outside seam, beginning at the top corners of the cardboards.

Fold the cretonne at the top for a two-inch hem and stitch; make a second row of stitching one half inch above. This provides for the two drawing cords which pull from opposite sides. Burlap, crash, denim or colored linen may be substituted for the cretonne.

The waste-paper basket here shown is made of pasteboard covered with wall-paper. It is sectional; the four sides are pierced and tied together with narrow ribbon or tape and the bottom section is held in place by tape diagonally interlaced.

Nearly every room leaves a surplus of wall-paper which can be very effectively made up into waste-paper baskets, handkerchief, veil and glove boxes, and even fancy hat-boxes made in imitation of the charming old-fashioned band boxes of our grandmothers.



Convenient Collar-and-Cuff Box made of cretonne

One waste-basket was covered with a soft gray paper; roses cut from a handsome border were next applied, and a few shadows were washed in with water-color, giving the effect of a water-color sketch.

Good dimensions for a small waste-basket are six and one quarter inches across the bottom for each side, by nine inches at the top, by twelve inches in height; the bottom should be a six-and-one-half-inch square.

Here are a few more suggestions for attractive and useful Christmas gifts:

To a woman who does her own sewing, a pattern bag is a necessary article. A simple and commodious one is made of a square of green denim or other firm material. There are two rows of pockets of the same material and deep enough to conceal the patterns well. The edges may be bound with contrasting tape or of deeper tone, and tape hangers or rings stitched at each corner allow it to be hung onto the door or wall space. The contents of each pocket is made known by the name being embroidered thereon: Coat, kimono, lingerie, shirt-waist, skirt or fancy articles.

If you know a dear old lady who likes to have a little special pillow of her own to take cat-naps on, wherever she may be, get a small and very light down pillow, cover it with soft gay silk, and at one end sew either an eighteen-inch loop of ribbon or of stitched silk, so that she may slip it over her arm and carry the pillow with her from room to room.

Lavender balls to scatter along the shelves of a linen-closet would also be appreciated by an elderly lady. These lavender balls are made by melting gum tragacanth in lavender water containing a few drops of oil of lavender, then mixing this with the crushed dried lavender flowers, shaping into balls and letting dry thoroughly. Arrange the lavender balls in an attractive box and tie with a lavender ribbon and a sprig of holly.

This folding Scrap-Basket is made of cardboard covered with wall-paper

Our Girls at Home

Christmas Jingles

In sending a Christmas gift, it is often doubly welcome if accompanied by an appropriate and happy verse or couplet. It gives a touch of originality to the gift and makes it much more personal. For instance, on the Christmas card accompanying an umbrella write this jingle:

Open me and raise me high,
And in damp weather keep me nigh.
Or, even when the sun shines bright
I'll keep its rays from you all right.

Within the folds of a handkerchief might be tucked a little card, reading thus:

Within your dresser find a place
For this small gift of lawn and lace;
It brings you all good wishes, dear,
For Christmas joy and Christmas cheer.

A dainty little bow for a girl's neck will be twice as Christmasy if accompanied by this little verse:

Although this bow is not the kind
That many girls have in their mind,
I hope that it will please you, dear,
And fill your Christmas with good cheer.

A box of stationery will be doubly appreciated if with it the following jingle is sent:

When far away from home and me,
A letter, dear, I fain would see;
So keep this box within your sight
For letters are my chief delight.

And what could be more appropriate to send with a belt than this clever couplet:

When this is where my arm should be
I hope that you will think of me.

You will be surprised to find how simple it is to write these little jingles when you once start.

Personal Daintiness

I once met a girl who boasted that she could dress in ten minutes. Ten minutes! Think of it! I looked at her from head to toe, and—I was convinced. She looked it. Her hair was straggly; her placket gapped; her collar didn't fit, and her waist and skirt had parted company. In fact, her whole appearance was anything but attractive. Surely no girl who cares anything for personal daintiness could dress in such little time. It's all well enough for girls to say it is vanity to spend so much time on one's personal appearance, but who likes an untidy girl? There is nothing lovelier or more charming than a neat, well-dressed woman. And by well dressed, I do not mean expensively dressed. Perhaps it would be plainer if I said "carefully" dressed. Did you ever know an untidy girl to be popular and well-liked? If a girl neglects so important a thing as her personal appearance, she is almost certain to be slovenly and careless in her home. Don't think it is vanity to spend a little time on dressing. Take ten or fifteen minutes each night to brush your hair and care for your complexion. After all, girls will be girls, and there is not one among you who does not want to look as pretty as you can; it is your duty.

However, it is not always the beautiful girl who is the most popular. Perhaps she is a grumbler, or her manner may be abrupt and rude. It is sometimes the plain girl who is the more charming and popular. And do you know why? It is this: She always has a smile and a good word for every one she meets; she does not whine and pour out her woes to anybody who will listen to them; her manner is everything that suggests refinement and gentleness. In fact, she is just a sweet, wholesome, unaffected, jolly girl, and the kind of girl every one loves. So cheer up, those of you that are not blessed with good looks. If the heart is beautiful and has good, pure thoughts in it, they are sure to shine out in the face, and this kind of beauty is one of the rarest and loveliest things in the world.

E. M. Farlow.

Hints for Clever Girls

Now, girls, if you are clever, the following suggestions for making the veil-sachet and window-box ought to appeal to you. The picture of the lady with a veil illustrates something new in the way of a sachet for your veil-box. It is in the form of an oblong envelope, and on the front of it there is a charming water-color picture of a girl. The white veiling draped over it gives a realistic effect to the picture. The envelope is padded with a layer or two of soft cotton sprinkled with a delicate sachet. Two holes are then punched in the envelope, and the ribbon is run through and tied in a fluffy bow in front. If you are not clever with the brush, clip from a magazine the head of a pretty girl and paste it on the envelope. The veiling which is draped from the top of the envelope to the bow will hide any rough edges. If you make one of these veil-sachets for a gift, select an envelope of the finest quality. Be very careful to tie the bow at the place where the veiling ends, so that the sachet will have a neat appearance when finished.

Novel Sachet for your veil or handkerchief box

If there is a window in your room that opens to the south, and through which the warm and blessed sunshine streams, do not let pass the opportunity of having a few living, growing and blossoming plants there this winter. The original window-box illustrated at the bottom of the page is not at all hard to make.

First measure the width of your window and cut three boards one inch thick, nine inches wide and as long as the width of the window. These will be for the front, back and bottom of your box. Now cut two pieces nine by eleven inches for the two ends. Plane or sandpaper the boards off smooth and nail them neatly together.

Bore four holes about half an inch in diameter in the bottom of the box so that the flowers may have air at their roots and the water may drain off.

Now your box is ready for its coat of paint, which may be any color you choose. Mine is white, but I have no difficulty in keeping it spotless, for I shellacked the box after the paint was dry, and now I can wash it and have no fear of the paint coming off. When the shellac is quite dry, either draw or trace some pretty trailing design on the front of the box.

When your design is clearly on the box, get a package of brass-headed furniture-tacks and tack them all along the line of the design so that there are no spaces showing.

Alice Burr.

Talks on Vocal Culture

Part III.

By Benjamin Schwering

Vowels "A" and "E"

For this article we will take up vowels long "A" pronounced as in "ate" and long "E" pronounced as in "eat." The difference in forming the molds of these vowels lies in the position of the lips and the distance the mouth is opened. The only similarity is the tongue which curves upward toward the roof of the mouth in both vowels—that is, the middle part rounds upward, the sides touching the upper back teeth. The tip comes down again in front of mouth, but care must be taken that it does not touch the lower teeth or their gums.

Vowel "A"

For "A" the lips are pushed up and away from the teeth, so that the upper front teeth will show almost entirely, and the lower ones will show just slightly. Be sure to push the lips away from the teeth, not draw them back. Now, then, place the peg three fourths of an inch between the teeth and speak the vowel "A," directing the tone just a little farther back than for "Ah." This is the right way to sing "A." Remember, for both vowels the tongue assumes position as described at first.

Vowel "E"

In learning this vowel the one-half-inch peg must be placed between the teeth, as that is the proper distance to open the mouth. The lips take more or less the position of a smile, but care must be taken that the smile does not resemble a grin. The corners of the mouth are drawn back slightly, and the lips are held so that the lower front teeth show almost entirely, while the lips cover the upper ones so that only about one half of their length is visible. The tone must be directed upon the middle part of the palate. Singing the vowel upon the teeth has a tendency to tighten the throat. This is the right way to sing "E."

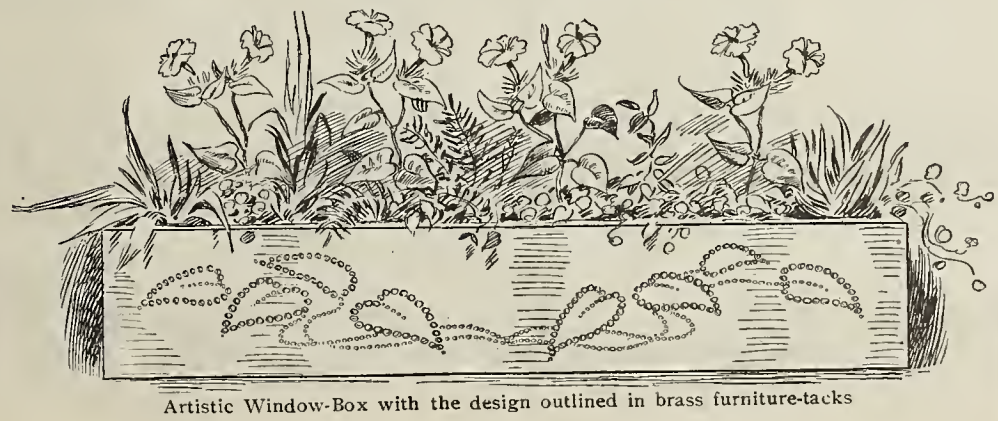
It is impossible to cultivate beauty of voice if you continually shout. Practise in a medium loud voice, without any forcing or straining in any way. Leave power to take care of itself, which it will do unconsciously. I cannot impress upon you strongly enough the fact that you must sing with a perfectly free and easy throat. The minute the muscles begin to tighten, so that the tone must be forced out, practice must cease, for to continue would only cultivate the muscles in the wrong direction. The muscles that produce tone tire out just as any other set of muscles do when they are used. If the voice becomes throaty or rough at any time when you are practising, or if the throat begins to feel swollen and has a tickling sensation, stop practising at once and wait until the muscles are rested.

It is absolutely necessary that the vowels be practised on the sharped and flatted notes as well as on the others.

Practise in front of a mirror so that the action of the lips can be observed. It is important that the correct position be attained in the beginning, for once the right way is firmly established with the muscles, it will be easy to sing correctly later on. And right here I wish to say that it is far more important to sing correctly with just a plain, ordinary voice than to have a beautiful voice and not know how to use it right. It is a fact, too, that training will improve almost any kind of a voice so that it will be a pleasure to listen to it.

However, vocal students should not aim too high. Do not think that just because you are taking vocal lessons that you will be as great a singer as Caruso, Melba or Patti.

The first of this series of articles began in the October 10th issue.



Artistic Window-Box with the design outlined in brass furniture-tacks

Duties That Come First

Every girl has a sense of duty; the difference lies in her interpretation of it. It all depends on the point of view. Whatever may be the viewpoint, however, the average girl looks too far into the perspective to find her prospective responsibilities and duties. She too often ignores the near-by surroundings. The delicate filament of romance woven into the feminine mind at the Creation has been and always will be, her heritage; so it is her nature to look beyond the commonplace, material things within her reach, out into the filmy, misty distance, sighing for an opportunity or a call to do something breathing of the sentimental bordering on the spectacular; always romantically ideal.

Then, too, most girls have an exaggerated conception of their self-imposed duties. The young girl gets the idea that great things are expected of her; at least that she will be given unstinted praise for having done them (and what girl doesn't listen hungrily to the lips of praise!) and she strives to reach out far afield to do something unusual, noteworthy, deserving of praise.

Girls who do this, almost without exception, overreach themselves. In striving for the ideal, they attempt the impossible, and fail. And the disappointment of failure not only enervates courage, but often is fatal to girlish ambition. Come back from out the clouds of romance; get back to earth! There is more than enough of little things to do that lie within reach of your hand; little every-day duties, now neglected, that will make you better and assure you a happier womanhood for having done them.

When you become a woman, womanly, when your experience has broadened and your judgment has matured, then you may aspire, as nearly every other woman before you has aspired, to elevate mankind. Just now, when you are in your teens, however, you would do better to confine your efforts to the elevation of womankind. And begin at home.

Begin in the kitchen. Begin with your mother. You can elevate her. Yes, indeed! You can elevate her to a seventh heaven of happiness by being kinder to her, more gentle, more considerate, more loving. You can elevate her to a state of comfort a degree higher than she has ever hoped to reach by lifting from her work-stooped shoulders a dozen of the little burdens you now thoughtlessly allow her to bear. You can elevate her to a longer lease of life by taking thoughtful heed of her comfort and happiness and in so doing you will be performing a duty, a duty peculiarly yours, the duty that comes first over all, that will earn you credit, more praise, admiration and respect than anything else you could do. It will prove a pleasing duty, a duty you should take up with a willing heart today.

Jessie B.

Novel Church Fair

A church fair which is sure to prove a success is "A Fair of the Days." Six booths are required, each one representing a week day. A large sign or arch decorated with bunting and bearing the words "Fair of the Days" should be in a conspicuous place.

Of course it goes without saying that the booth for Monday should be decorated in blue. The following articles should be kept for sale: Clothes-pin bags, work-aprons, sunbonnets, laundry bags, bluing, soap, clothes-lines and other articles necessary on wash-day. At the booth representing Tuesday articles for ironing-day should be sold: Iron-stands, iron-holders, starch, irons, wax, small ironing-boards, etc.

Then there are Wednesday's and Thursday's booths. These are a little more attractive than the others. Wednesday could be devoted to materials needed for darning-and-mending day, such as cotton, darning-needles, wool-bags, button-bags, stocking-darner, thimbles, etc.; while Thursday should be devoted to fancy work of every description; centerpieces, plate-doilies, platter doilies, cushions, bureau-scarfs, etc.

As Friday is generally cleaning day it is a wise plan to sell at this booth aprons, dust-caps, mops, dusters, brooms, silver polish, etc.

Then comes Saturday's booth, perhaps the most interesting and popular of all. Here should be sold everything to induce the housekeepers to buy: Baking-dishes, pie-pans, bread-pans, sauce-pans, frying pans, also cakes, pies, breads, rolls, canned jellies, jams, catchup, pickles, etc. Recipes for the dainties may also be sold.

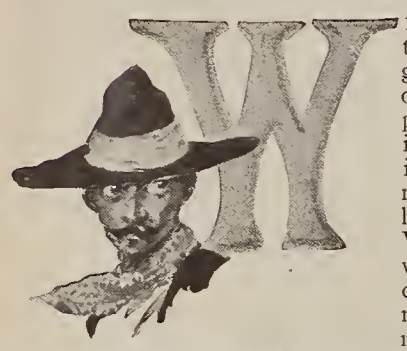
'Twixt Cup and Lip

A Tale of Sicily

By Louis Tracy, Author of "The Stowaway," "The Wings of the Morning," Etc.

Illustrated by L. F. A. Lorenz

PART II.—Wherein the Cup is Refilled



WHAT between the negative tortures of the gag and the bandage over his eyes, and the positive agony of being bound tightly during a long ride over rough country in a high-peaked saddle, Vyner was worn out when a halt was called. He was not merely told to dismount. Some one cut a rope or two, dragged him roughly to the ground, bade him with a curse to rise to his feet and pushed him forward.

But there is a limit to ill-usage, even by a Sicilian brigand, when the victim is tied and hardly able to move, and it is imperative that a certain distance should be covered on foot.

Rupert fell twice; he was bracing himself to lie prostrate until his captors either assisted him or ended his miseries with a knife, when he heard the same harsh voice order two men, Beppo and Nuccio, to take him by the arms and put him in the *spelonca*.

Now, he had not enough Italian to know whether the word meant a cave or a shelter, but at any rate it argued a resting-place, and he was so utterly weary that his limbs craved for repose under any conditions. So the blaze of wrath died down, and he yielded readily to the pressure of hands in which his bruised nerves at once detected a desire to help and not to maim.

Indeed, while his uncertain feet were being guided up a rocky path, one of the men whispered:

"Courage, signor! It is not so bad as all that, but you should not have broken Giorgio's head."

"Pity it wasn't Luca's," smirked the other.

Rupert, of course, could say nothing, but the men's talk hinted at disunion, and a ray of hope peeped up 'midst the gloom that had settled on his soul. For he was beginning to fear.

During the long ride—even in the stupor that succeeded the wild energy of the fight he had actually counted nineteen thousand steps taken by his mule—he came to the conclusion that his capture was due to a mistake. Foreigners in Sicily know little of the Maffia, even less of brigandage. Queer tales are told of both, but their operations are almost invariably domestic. At times the outer world hears of them, owing to the return of a wanderer from America or England who finds that a Sicilian never forgets. But such cases are rare, because the Maffia has a long arm, which can strike as surely in San Francisco as in Palermo, and brigands dread the international uproar that attends the ill-treatment of a stranger.

Still, the Italian authorities are occasionally called on to hunt out the perpetrators of some unusually atrocious murder, and a lurid light is then thrown on local feuds. Vyner, who knew his Sicily well, almost succeeded in persuading himself that he had been taken for some absentee landowner whose reappearance was expected and duly provided against. If that were all, his release would follow as soon as his identity was discovered. Unfortunately, he had demonstrated that a gun used as a flail lost none of its stopping power. It was possible now that his life might be forfeited to the spirit of the vendetta. Sheer ill-luck, he thought, had parted him from Luigi. When he fell in with the bandits, a word of explanation from the guide would have saved him this unpleasant experience.

It was the gag that he resented more than all else. If only the fools had let him speak he might have persuaded them of their error! Therefore, when his feet rustled among a litter of straw and leaves, and he could smell the stuffy atmosphere of an ill-ventilated interior, he realized that he was at the end of a long journey, and fully expected developments. He could only trust that they would take a turn favorable to himself.

Some of the ropes that bound him were cast loose, but he felt others replacing them on his arms and around his waist. At last, after a delay that seemed to be interminable, his mouth and eyes were freed, and he found himself standing in the midst of an evil-looking crew of ten men, all armed to the teeth. They were surveying him by the light of a lantern with the satisfaction of hunters who have trapped a valuable but dangerous animal, and it was with the utmost amazement that he heard one address him by name.

"So, Signor Vyner," said the owner of a snarling voice that he had good reason to remember, "you wished to decline our hospitality? It will cost you dear, that stroke you gave my brother. He is dead!"

Rupert tried to speak. He could not. The relaxed muscles of his mouth and his swollen tongue had not yet recovered their use. He stammered a few broken words, but they were unrecognizable.

"You must give him some milk, Luca," grinned another member of the gang. "His mouth is sore. You see, he is accustomed to the society of ladies, and he finds our manners rough."

"There is no reason why he should talk," cried Luca savagely. "If I had my way he would never talk again."

"The chink of the signorina's money will speak pleasantly enough," said the other, who evidently prided himself on a sense of humor. "It will not mend poor Giorgio's skull, but it will sing a fine requiem for him and Matteo."

Luca, whose bloodshot eyes scowled vengeance, turned on his heel and vanished. His action seemed to say:

"Tend him if you will. I shall deal with him later."

Vyner was told, quite civilly, to sit down. A rude bed, fashioned of canvas strips stretched across a wooden frame, lay just behind him. On all sides was the gloom of a vault, save that a strong wooden partition stood behind the bed, and through a hole in this passed the ropes that secured him—an ingenious device that permitted a certain liberty of movement, but made it impossible to free himself unaided unless he owned the teeth of a beaver.

A stone jar full of goat's milk was produced, and he thought he had never tasted anything so delicious as that first healing draft. Then he endeavored to eat some black bread, but failed, whereupon one of the men fetched a dish of hot macaroni. Each mouthful seemed to restore his strength and diminish the pain in his bruised lips. Soon he tried the bread again and was able to masticate it. Then he spoke.

"Why have you brought me here?" he asked.

"Luca will explain," said the man who had given him the food.

"Who is Luca?"

"Eat and be content," was the gruff answer.

"Luca is the king of the Rock Vultures," put in the humorist. "He catches pigeons, sometimes a turtle-dove."

"But I am English."

"No matter—all breeds come alike to Luca."

The first speaker growled a warning that Nuccio must close his mouth, and Rupert knew by the name that Nuccio was one of the two deputed to carry him to the cave. He began to twit them on an awkward blunder in capturing one who was poor, but received no answer. Clearly, Luca was a leader who brooked no interference on the part of his men.

"She flew to the roadway from the balcony of the Hotel des Temples"

His eyes now became accustomed to the murk, and he saw that he was in a lofty cavern with a narrow entrance on the floor level. It had been used as a stable or perhaps, more accurately, as a refuge for cattle caught by bad weather while grazing on the mountain pastures. Apparently, the place was a natural cavern. Most certainly it had not been hewn by men's hands. The small wick flickering in a Roman lamp revealed that the walls were built of gigantic boulders, rounded and water-worn. Indeed, it needed no geologist to see what had happened. At some time a torrent had cut its way through those stones. One day the earth trembled, there was a land-slip, and behold, the water found another channel, while a large section of its deserted bed was roofed in for the benefit of a new generation of mountaineers.

Oddly enough, Vyner's thoughts were far more deeply concerned with the threatened rupture of his love affair than with his present predicament. It was bad enough that Mary Hassell should have overheard his conversation with Mrs. Winthrop, but a thousand times worse that the spiteful Cynthia should be left in possession of the field before he was vouchsafed a moment's explanation. He was wondering what Mary would think of his absence and how this unlooked-for adventure would affect his chances of winning her confidence once more, when Luca returned. The brigand held in one hand a revolver, in the other a pen, some note-paper and an ink-bottle.

"Leave us!" he said to his associates.

They went out, unwillingly, Rupert fancied. If there was a bargain to be struck they wanted to hear its details. But Luca was no comic-opera chief of picturesque scoundrels. His word was law, and the others trooped off at once. As far as the captive could judge in the gloom, the exit was rather a passage than a doorway. He could hear the scraping of hobnailed boots for a distance of ten or twelve feet, and then there was a silence. Before the last man had disappeared, their leader passed behind the rough boarding which split the cavern into two sections. He brought a rude table, placed it before his prisoner and spread the writing materials on it. Rupert noticed that his ears were alert for external sounds, and that the revolver was now stuck in a heavy leather belt. Obviously, he had no fear of any attack by the man who was securely roped to the area of the bed. Still listening, he put the lamp on the table.

"Can you see well enough to write?" he asked, with a calmness that was in curious contrast with his earlier exhibition of anger.

"Yes," said Vyner.

"Write, then, to the Signorina Hassell at Girgenti. Tell her you are in the hands of one who knows how to enforce his wishes. My price for your life is one hundred thousand lire, to be paid in Italian or English gold. If she agrees to provide that sum, she is to visit the cathedral on Thursday morning between nine and ten o'clock, and wear a red sash around her waist. Then she will receive another letter from you on Saturday, telling her how and when the money is to be given to my agent. If she refuses or tries any tricks with *carabinieri*, there will be posted to her, first, one of your ears, then the other, and, finally, your tongue. Do you understand?"

"One hundred thousand lire!" said Vyner, smiling up into the brutal, sensual face. A pauper will smile at death himself when he hears his value appraised thus highly.

"Yes, that is the amount, Giorgio's death has doubled my original estimate."

"But—"

"Why waste time? To-morrow is Wednesday, and it will be unpleasant for you if your letter fails to reach the signorina before Thursday morning. Moreover, she may need some hours of reflection."

"Such a sum is ridiculous."

"It will not be abated by a soldo. Write, I advise you."

"Even if the Signorina Hassell is willing to raise the money, she cannot possibly obtain so much gold in Girgenti."

"That has nothing to do with her acceptance of the bargain. I shall make reasonable arrangements, but I shall not depart from anything I have said. I am in no hurry, Signor Vyner. It is you who should make haste with that letter."

Rupert had been talking to gain time, not to waste it. He had seen many types of men who meant what they said, and if ever an implacable mind looked through evil eyes at a fellow-mortal, such a mind now confronted him. Four thousand pounds was no king's ransom to Mary Hassell. Were his plight that of some ordinary tourist who had been so unlucky as to fall into the clutches of brigands, and were the relations between him and Mary Hassell those of yesterday, he was philosopher enough to yield to the inevitable and tell her what had really happened. But the girl now

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regarded him as a fortune-hunter, and, although she might be willing to rescue him, the payment of this large sum would surely suggest to her critical temperament the purchase of her own freedom from a hateful compact.

For the first time in his moth-like career Rupert that day had glimpsed certain aspects of his soul which were profoundly unsatisfactory. He did not shirk self-analysis. Mary was lost to him, but he would have tried to save his life on the terms offered were it not for a subtle instinct warning him that the brigand's object would be only partly obtained by securing the money. Four thousand pounds was an amount not beyond the bounds of ultimate repayment, but Luca would exact another sort of settlement on behalf of Giorgio. He could keep his compact in the letter and break it in the spirit. In a word, Rupert was doomed, and it was the only good tenet in his worldling's creed that a man should die game.

The Sicilian watched him closely. It was not to be denied that the young Englishman's face showed something of his emotions, and his would-be murderer gaged him according to the local standard.

"It is well," he said quietly when Rupert took the pen and a sheet of paper. "Write just what I have said, signor. You will gain nothing by changing my words. Remember, she must mean to pay, and there must be no hunting by soldiers."

"If I write, my letter must be delivered unopened to the signorina," said Vyner.

"I am making terms, not you," and there was a touch of anger in the retort.

Rupert laid down the pen.

"Promise that, or not a word do I put on paper," he said.

There was a moment's silence; then Luca smiled, and his smile was that of the Gorgon.

"What does it matter?" he murmured lightly. "A few endearments will help, perhaps. But stick to the text, signor. Be quite plain in that."

"Unopened!" persisted Vyner.

"*Saetta!* Be it so!"

Then Rupert wrote, without hesitation, and with hand devoid of tremor:

My Dear Mary:—

This is a message of farewell. You heard what I said to Mrs. Winthrop this morning; well, some of that was true. It was a sort of family theory that I should marry a rich wife, and when your trusting little heart came within my reach, with its reliquary of gold and jewels, I strove most earnestly to seize it. Now I am going to die, but, before the end, I want you to believe that you had become dearer to me by far than all your wealth of money and lands. If I were given a fresh lease on life, and you were suddenly grown poor, I would ask no greater happiness than to be your husband and earn the wherewithal for our existence—I don't know how, but I would do it. At any rate, notwithstanding my bad start, you may feel that my love-making had grown honest, and you have the satisfaction of knowing that I shall die a better man because I met you. I am sorry to be compelled to write to you in this strain. However, it is unavoidable. I don't think I have a 100,000-to-1 chance of escaping, and those are long odds. If the authorities put up a hunt, you might tell them that I am imprisoned in a mountain cavern about eight miles from Comitini by way of the Aragona plateau. There are ten or more highly-colored ruffians in the party, and the leader is called Luca, while others are Beppo and Nuccio. I think I killed two of them before they overpowered me; one man, Giorgio, is Luca's brother. Luigi, if they missed him, may be useful, and it will help to defer matters if you wear a red sash and go to the cathedral about 9:30 A.M. on Thursday. Of course, you should take several people with you. Then, as a last favor, I would ask that you leave Sicily at once—by the midday train on Thursday, I mean. If I win clear, I shall find you somewhere. But I won't, so goodby, sweetheart, and may some decent fellow make you a better mate, if not one who would love you more, than yours ever,

Rupert.

He read through what he had written, mused a moment, and added a postcript.

It might do Cynthia Winthrop some good if she saw a copy of this letter. She is one of the same idle crowd as myself. Really, the difference between us and the genuine brigand is not so marked in many respects. Please *go*, on *Thursday*. R. V.

He was about to fold the paper when the Sicilian stopped him with a gesture.

"You have told the signorina the exact amount?" he asked.

Rupert pointed to the figures "100,000;" the other bent over the little table in his eagerness to obtain some proof of his prisoner's good faith.

For an instant there was an opportunity, and Vyner's strong hands were within an ace of closing around the brigand's neck when a step sounded in the passage. Vyner sighed. It was a near thing. While Luca was still staring at the numerals Nuccio entered.

"Giannetta is here!" he announced in a sacred way.

"Quick!" cried Luca to Vyner. "Address that envelope. I must be going."

Rupert obeyed, though he took care to moisten the gummed edge of the envelope and close it before writing the address. Then Luca rushed out. Vyner glanced at Nuccio and saw that the humorist was cowed.

"Who is Giannetta?" he asked.

"Giorgio's wife. Lucky for you she cannot pass the guard at the door, or she would show you a Sicilian bodkin."

That was Nuccio's jesting way of saying that the bereaved lady would find some consolation in stabbing Vyner to the heart, and, indeed, her faintly-heard screaming told the same story more emphatically. Somehow, it seemed to the harassed Englishman that Nuccio was the least bloodthirsty among the ghouls surrounding him. He took the vague chance that offered, and made a proposition.

"Nuccio," he said, "help me to escape and I will give you ten thousand francs—all the money I possess."

The man glanced over his shoulder toward the exit.

"Impossible, signor," he muttered.

"Nothing is impossible. Leave the risk to me. Untie me at the right moment—that is all I ask. They cannot suspect you. And I will pay the money, on my honor."

Nuccio suddenly swore at him, and Vyner thought that his last hope had failed until he heard footsteps which the peasant's alert ears had probably caught a second earlier. Two men came in. They dragged some dried bracken to a point near the passage and stretched themselves on it. Nuccio went out. Vyner, after endeavoring to recall some long-forgotten prayers, lay on the truckle bed and fell asleep. He was so tired that he would have slept by the side of his own open grave.

Thenceforth, for sixty hours, he ate and slept and improved his acquaintance with Sicilian patois by drawing his guardians into unwilling talk. Never were his bonds loosened; never was one man alone with him; never did he see a ray of light except the dull radiance of a lamp. He could only estimate time by occasional meals or a curt guess at the hour in response to a question. He had no means of ascertaining the trend of events. Mary would wear the signal sash, of course; it might even be expected that she would enter into negotiations for a ransom; but, whatsoever the outcome, he did not regret his outspoken letter. Few sounds reached him from the outer world; the faint bleating of goats and once the shrill whinny of a mule alone reminded him that somewhere beyond that wall of rock the sun was shining on one of Nature's beauty spots. Luca visited him frequently, but said no word; his only care seemed to be that the prisoner's bonds were untouched.

At last, about noon on Friday, something happened. Nuccio was on duty. He caught Vyner's eye, and stuffed some article under a heap of stable litter. Soon afterward Luca rushed in. He muttered an unintelligible order that sent the others out with every appearance of alarm. One of them came back, carrying that detestable gag. Vyner did not attempt to make matters worse by resistance. When his hands were tied behind his back and he was unable to utter any sound other than a groan, Luca spoke.

"The *carabinieri* are searching the district," he said coolly. "I hope the signorina is innocent, but to-night will show. My messenger is expected at six o'clock. At seven, he will return, bearing your reply, or mine."

The Sicilian had the art of condensing his speech to the fewest words necessary. If he wished to torture his prisoner by anticipation he could have chosen no more effective means. He extinguished the lamp, and both men withdrew. Vyner heard them piling stones in the passage. They worked hard for several minutes; then there was peace—the solemn hush of the tomb. Long before they made an end, Rupert had kicked aside the pile of bracken and drawn nearer with his toe the object hidden there by Nuccio. It was not a knife, but by dodging it between his feet on to the bed, Rupert got his fingers on it and discovered instantly that it was a razor in a case. He opened it. With infinite difficulty he managed to cut the rope on his wrists. Then out came the gag, a couple of slashes severed the stout hempen cords on arms and waist, and he was free! He put the razor in his pocket. Despite the hardship and confinement he had endured, he was on fire with the strength of hope and youth. It would be ill for any Sicilian who

[CONCLUDED ON PAGE 34]

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There's nothing, unless it be the after-delight in the pictures themselves, that more universally appeals to young and old than picture taking. And it's inexpensive now, for Kodak has made it so.

Box form Kodaks at $5.00 to $12.00 and Brownie Cameras (they work like Kodaks) at $1.00 to $12.00 and high speed Kodaks with anastigmat lenses at $40.00 and upward, offer an infinite variety, but in none of them have we omitted the principle that has made the Kodak success—simplicity.

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The Woman's World has the highest paid staff of writers of any woman's paper. Woman's World is read with intense interest by more women than any other paper.

The Missouri Valley Farmer The great paper of the corn belt—is of interest especially to those in the greatest farm section of the world. Packed with practical information.

The Household is the favorite magazine in over 500,000 homes. It has hundreds of pages of interesting stories. Many fine departments, fashions, cooking, poultry, gardening, etc.

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For One Dollar you will receive a subscription to each of the five magazines for a whole year, and the 1910 Baby Calendar. This offer is limited. You can have each paper sent to any address you choose or all to your own address. They may be new or renewal. Send for them to-day.

FARM AND FIRESIDE, Springfield, Ohio

OUR YOUNG FOLKS' DEPARTMENT

Cousin Sally's Letter

DEAR GIRLS AND BOYS:—

Since the organization of Cousin Sally's Club, I have had stacks and stacks of letters from boys and girls asking for suggestions for forming a branch club of their own. So right here I am going to give you some good ideas for clubs. Of course all the members of your branch club must be members of Cousin Sally's Club, because you see how impossible it would be for you to carry on successful club meetings if one member knew our club motto and the others did not. In forming your club, call a meeting, vote for a president, vice-president, secretary and treasurer. However, if there are not more than four members in the club, merely have a president and secretary and let the secretary also act as treasurer.

The Duties of Officers

The President shall preside at all meetings of the club. He shall have power in case of a tie vote to cast the deciding vote.

The Vice-President shall preside at all meetings of the club in the absence of the president and shall assist the president in all ways possible.

The Secretary shall keep an accurate record of all proceedings of the club. He shall keep a list of the names and residences of all members, call the roll at each meeting and read the minutes.

The Treasurer shall keep a correct account of all money received by him and shall collect dues from the members and give a weekly report showing the financial conditions of the club.

Clubs for Girls

If you are undecided as to the kind of club you would like to form, here is a list of clubs to choose from: Sewing and reading club, cooking club, musical club, outdoor club, pleasure club, literary club, pin-money club, dramatic club, lend-a-hand club, travel study club, photographic club, handicraft club, sketching club. After you decide on the kind of club you wish to form, it is well to name it. For instance, a pleasure club for girls that I know of is called "The Merry Maids." And a sewing club where the girls meet once a week and sew dolls' dresses is called "The Dolls' Dressmakers." When you form a club you will be able to originate many ideas for carrying it on in an interesting manner. Sometimes cutting and pasting clubs are enjoyed by very little folks. At the meetings the girls cut pictures out of old magazines and paste them in scrap-books, or they make paper dolls.

Clubs for Boys

Athletic club; coin and stamp collecting club; debating society, current topics of interest to be discussed; historical or patriotic society, its object to study the history and government of the United States, also lives of heroes, etc.; humane club, its object being kindness to dumb animals; carpentry club; walking or tramping club; musical club; photographic club; sketching club; travel study club; handicraft club.

Club Dues and Meetings

One cent or five cents a week may be charged for dues, the money to be used for the benefit of the club or for charity. However, this is to be determined by the members. The meetings may be held once or twice a week according to the convenience of members.

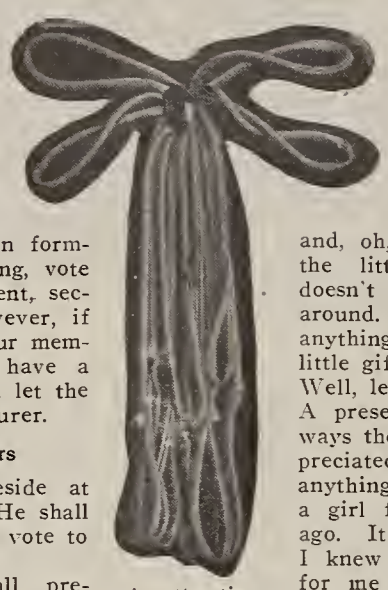
I wish those of you who form a club would write and tell me how you are getting along and just what you do at club meetings. With love to you all,

Faithfully, COUSIN SALLY.

Heart-shaped Pin-Case with ribbon bow

Suggestions for Christmas Gifts

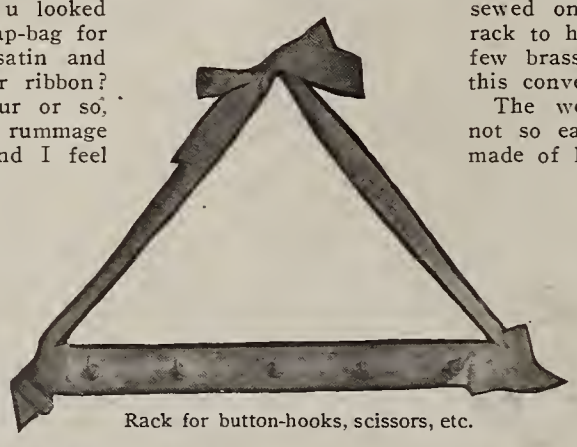
CHRISTMAS! Merry Christmas! What a glad, merry season of the year! By this time, I know you are all fired with the Christmas spirit, and your fingers and brains are working overtime to finish your presents before Christmas.



An attractive Neck-Bow

But perhaps there are many of you who do not know how to plan your Christmas gifts. There's something for mother, father, sister and brother, and, oh, dear, so many more, and the little bank on the mantel doesn't hold quite enough to go around. You feel that if you give anything at all, it must be some little gift which you make yourself. Well, let me see if I can help you. A present that is bought isn't always the one which is the most appreciated. In fact, I treasure above anything a hemstitched scarf which a girl friend gave me some time ago. It was all her own work and I knew that she must have cared for me a great deal to spend so much time working on this gift.

Have you looked in mother's scrap-bag for scraps of silk, satin and odd bits of lace or ribbon? Take half an hour or so, after school, and rummage through the bag and I feel sure you will find some generous-sized scraps of silk that can be used to good advantage in making these Christmas gifts which I have planned especially for you.



Rack for button-hooks, scissors, etc.

This charming neck-bow is sure to delight your oldest sister. It is made of narrow cord-like strips of satin, with the depending strips in different lengths. Cut long, bias strips of silk or satin, three fourths of an inch wide: turn in the edges and fold them up double, slip stitch them together. This will make a little cord-like strip about one fourth of an inch wide. Cut four strips seven inches long, and catch the ends together to form a loop. For the dangling ends cut two strips eighteen inches long. Bring the ends together and tack; three inches from the bottom tie a knot in each strip. Now cut four strips twelve inches long, turn up the lower end of each strip three inches and knot each strip as before. Cut two strips nine inches long, turning up the lower end three inches and knot again. All of these little long strips are caught together with very long thread, and a large cut jet or fancy-colored button is used to cover the stitches and to make the center of the butterfly bow. Of course mother's present is the most important of any. With every stitch of the needle, loving and happy thoughts are sewed into the gift, and your heart throbs with joy and excitement when you picture mother's happy face on Christmas morning as she opens the dainty gift you made all yourself.

Embroidered linen Work-Bag

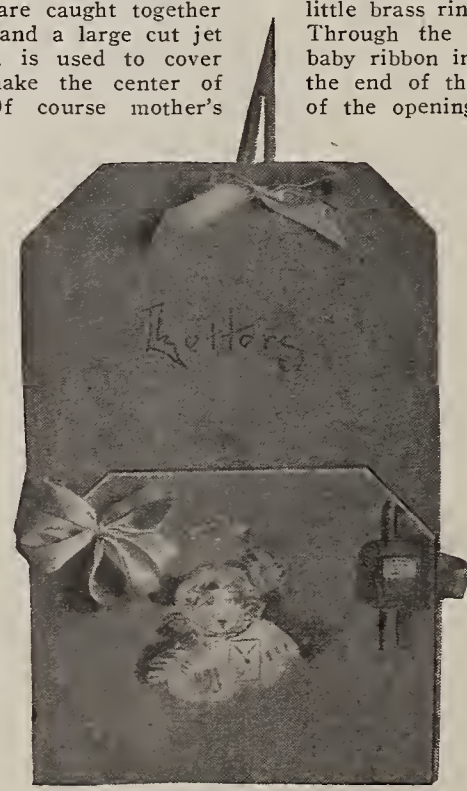
The attractive heart-shaped pin-case would perhaps fill one of mother's long-felt wants, and then there is the work-bag and rack for holding the scissors, button-hook, whisk-broom, etc.

But, first let me tell you how to make the heart-shaped pin-case. Cut two pieces of card-board in the shape of a heart. One is for the front and one for the back. Then from your silk cut two heart-shaped pieces a little larger than the cardboard, so that the rough edges of the silk may be lapped over and glued to the under side of the cardboard. For the front side use a piece of flowered silk, and before gluing it place a heart-shaped piece of cotton wadding between the silk and the cardboard. It is not necessary to use wadding for the back piece. This may be covered with any plain fabric that matches the predominating color of the flowered silk. The two hearts are then whipped together and the pins are stuck around the edges of the case. A fluffy bow with a long loop completes this useful little pin-case.

The little rack is made of a piece of broom-stick ten inches long covered with flowered silk. However, even a wide piece of ribbon would do, provided it is in some delicate color. The rack is suspended by a loop of ribbon in the same shade as the silk used for covering the stick, and at the end is finished in a pretty bow. A bow is also sewed on each end of the rack to hide the stitches. A few brass hooks complete this convenient little rack.

The work-bag is perhaps not so easy to make. It is made of heavy linen worked in pale blue silk floss. First cut out a paper pattern. Make a circle thirteen inches in diameter. Fold your pattern over, and beginning at the fold cut out the design you desire at the top of the bag. The one in the picture here given is cut in scallops, which are buttonholed. From this pattern cut the back and front of the bag and then sew together. A simple outlined design on the front (perhaps one which you could draw yourself) would look very effective, but if you wish something more elaborate, have one stamped on. At the top four slits are cut and buttonhole stitched. Through these silk cord or ribbon is drawn. If you cannot embroider, this bag would look equally well if made of fancy silk or cretonne.

The cunning case for holding ribbon is just as easy to make as can be and costs so little money. First cut a strip of silk four inches wide and eighteen inches long or use ribbon the same width. Neatly hem the edges of the silk, then gather it lengthwise and shirr it on little brass rings one inch in diameter. Through the opening slip a bolt of baby ribbon in any desired color. Let the end of the baby ribbon come out of the opening in the case and to it tie your Christmas card. A hole is punched through the bolt of baby ribbon and ribbon a little wider is run through it to form a loop by which to hang up the case.

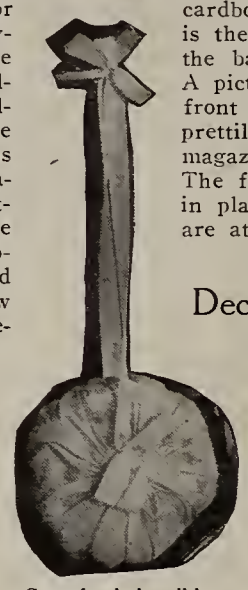


Letter-Holder made of linen

The cute little round pincushion also here illustrated is just the thing to give sister or mother for her room. If you cannot buy an untrimmed cushion, make it yourself, stuffing it with cotton and covering it with pale pink satin. It need not be of the finest quality, as the little filet square entirely covers it. If you cannot obtain one of these squares, lace will do just as well. The ribbon is gathered and then sewed around the cushion. A yard is required, while two yards of narrow baby ribbon are required for each rosette.

The letter-holder is just the prettiest thing ever. How sister would love to have one to hang near her desk! It is made of strong cardboard covered with heavy linen. In cutting the linen allow a little extra to lap over the edges which are glued to the cardboard. A thin piece of cardboard is then pasted over the edges to give the back a neat, finished appearance. A picture of a baby is painted on the front in water-colors. However, a prettily-colored picture clipped from a magazine will look just as effective. The front of the letter-holder is held in place by two bits of ribbon which are attached to the back.

COUSIN SALLY.



Case for baby ribbon

Decorating the Christmas-Tree

YOU would be surprised to know how many pretty ornaments for your tree can be made with a small ten-cent bottle of gilt. Gilded peanuts strung on gold and silver thread make such pretty decorations; the peanuts are first gilded and then strung alternately with cranberries.

Other effective trimmings for the tree are bracelets and necklaces made of nut kernels, raisins and dates strung with a bodkin on a heavy thread. String them in this manner: A raisin, then an almond, another raisin, then a peanut, then a date, and so on.

Pop-corn and cranberries strung alternately also make pretty strands to wind in and out the branches of the Christmas-tree. The corn should be popped several days before using; it will then string without breaking.

As the star is emblematic of Christmas, of course there should be quite a few stars hanging on your tree. These can easily be cut out of cardboard, gilded and then sprinkled with diamond-dust. Gingerbread men and gingerbread animals tied to the branches with bright red ribbon also make charming decorations. Then there are English walnuts which look so attractive when gilded. This is the way to fix them: Split them open with a penknife without breaking the shell. Take out the meat and put a thimble or small candy inside. Glue the shells together, gild them and tie the walnuts on the tree with little red ribbons.

Monthly Prize Contest

Our prizes this month are for:

Verse. Subjects: "My Valentine" or "The New Year."

Drawing. Subjects: "The Old Skating Pond" or "Jolly Old St. Nicholas."

For the best original work under any of these heads, we will give as first prize, to the boy, a pocket-knife; to the girl, a bead purse. For the next best five in order of merit, we will give prizes of beautifully illustrated books. The contest is open to every boy and girl reader of Farm and Fireside. Please remember that all work submitted in the contest must be your own. Verses which have been copied or drawings which have been traced, will not be considered. It does not matter whether or not you are a member of Cousin Sally's Club, you are privileged to take part in all of our contests. Do not roll your drawings, but send them flat.

Put your name, age and address on all work and send before December 20th to Cousin Sally, Farm and Fireside, 11 East 24th Street, New York City.

Cousin Sally's Club

This club has been organized for all boy and girl readers of Farm and Fireside who are seventeen years of age and under. The button of membership costs but five cents and every boy and girl who writes for one will receive a long letter giving the club's motto and telling what is expected of members. The colors of the button are blue and white, and I know every girl and boy will be proud to wear one of these pretty emblems. In writing for a button, give your name, age and address, and inclose five cents in stamps. Address Cousin Sally's Club, Farm and Fireside, 11 East 24th Street, New York City.

Dainty Pincushion for a girl's dresser

Clothes for All Occasions

THAT is what you will find in the designs illustrated on this page. The princesse gown pictured in pattern No. 1418 is a dress specially new in style and yet a practical gown at the same time. It was designed for the woman whose figure is not sufficiently good to wear the perfectly plain princesse dresses with no break whatever at the waistline. Though this is a one-piece costume, yet the price of the pattern is but ten cents. Henrietta cloth and Panama cloth are both good materials to use for this dress with velvet for the trimming. It would look well developed in ladies' cloth.

No. 1428—Belted Kimono—High or Low Neck

Pattern cut for 32, 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for sacque in either style in medium size, or 36 inch bust, three and one half yards of twenty-seven-inch material, or two and one fourth yards of thirty-six-inch material. The price of this pattern which can be made in two entirely different styles is ten cents. Order from the Pattern Department, Farm and Fireside, 11 East 24th Street, New York City

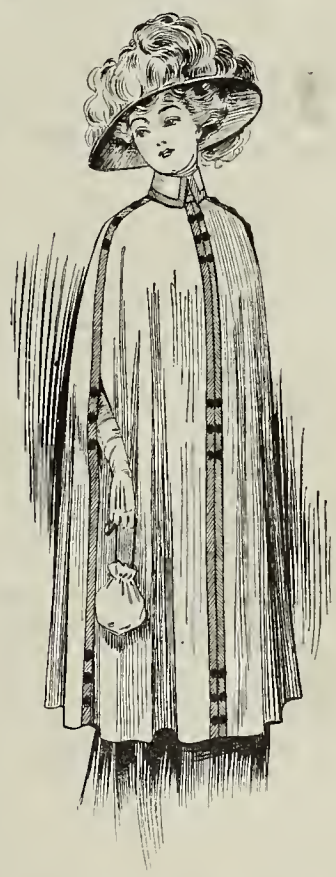
CAPES are very fashionable again and as a separate wrap they are surely most convenient. The three-quarter-length cape is a useful wrap to own. Made of ladies' cloth, trimmed with braid the same color and either black or gilt buttons it is most attractive.

If you are in need of a dressing-sacque, you will find pattern No. 1428 most satisfactory. This pattern may be used to make two entirely different dressing-sacques, sacques like those illustrated on this page.

Challis is a good material to use for the low-neck dressing-sacque, while French flannel is suitable for the belted kimono.

No. 1185—Plaited Shirt-Waist

Pattern cut for 32, 34, 36, 38 and 40 inch bust measures. Quantity of material required for medium size, or 36 inch bust, three and three fourths yards of twenty-seven-inch material, or two and three fourths yards of thirty-six-inch material

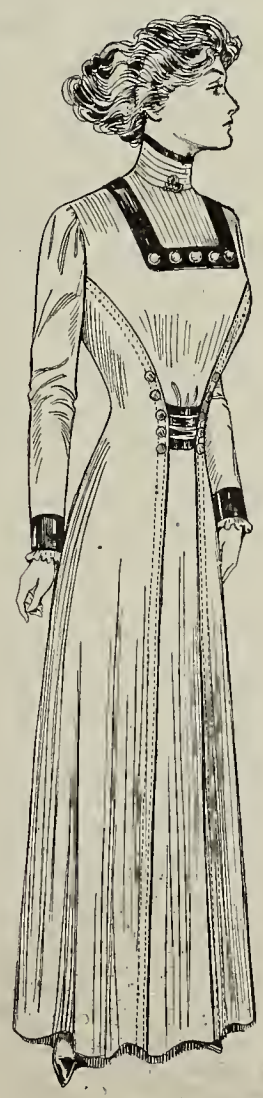


No. 1421—Three-Quarter Cape With Military Collar

Pattern cut for 32, 36, 40 and 44 inch bust measures. Quantity of material required for medium size, or 36 inch bust, five yards of thirty-six-inch material, or three and three fourths yards of fifty-four-inch material

No. 1094—Wrapper With Yoke

Pattern cut for 32, 36 and 40 inch bust measures—small, medium and large. Quantity of material required for medium size, or 36 inch bust, eight yards of twenty-seven-inch material, or five and three fourths yards of forty-four-inch material



No. 1418—Princesse With New Style Front

Pattern cut for 34, 36, 38, 40 and 42 inch bust measures. Quantity of material required for medium size, or 38 inch bust, twelve and one half yards of twenty-two-inch material, or nine and three eighths yards of thirty-six-inch material, with five eighths of a yard of velvet and one half yard of lace for trimming

Madison Square Patterns

FOR every design illustrated on this page, we will furnish a pattern for ten cents. Our big catalogue of Madison Square patterns will be found invaluable to the woman who makes her own clothes. We will send it to you if you inclose with your order ten cents in postage. Here is our latest liberal offer in regard to Madison Square patterns. It holds good only up to December 24th. We will give one Madison Square pattern for only two yearly subscriptions to FARM AND FIRESIDE at regular price of thirty-five cents each. Your own subscription may be one of the two. We will send FARM AND FIRESIDE one year, new or renewal, and any one pattern for only forty cents. Send orders for patterns and for the pattern catalogue to the Pattern Department, FARM AND FIRESIDE, 11 East 24th Street, New York City.

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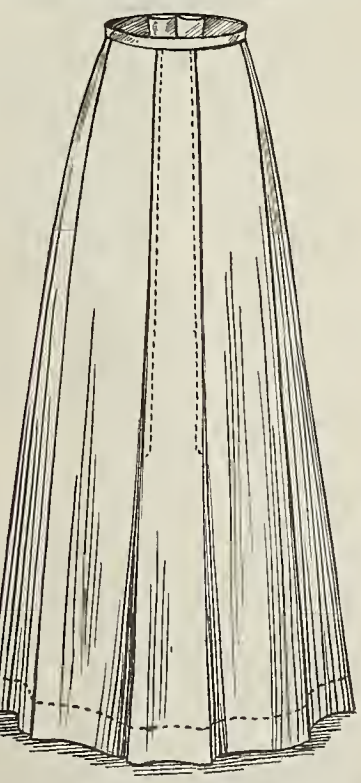

No. 1420—Seven-Gored Maternity Skirt

Pattern cut for 24, 26, 28, 30, 32 and 34 inch waist measures. Length of skirt all around, 42 inches. Quantity of material required for medium size, or 28 inch waist, five and one half yards of thirty-six-inch material, or four yards of fifty-four-inch material

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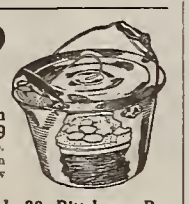

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Christmas Goodies

Date-Balls—Mix two thirds of a pound of chopped dates, one third of a pound of chopped and stoned raisins, and one third of a pound of chopped pecan-meats. Moisten with a very little sugar-syrup, dip in syrup boiled till it will candy, and set on oiled plates until cold.

Almond Layer Cake—Beat to a cream one cupful of sugar and one half cupful of butter, add the well-beaten whites of two eggs and the yolk of one, one cupful of sweet milk, two teaspoonfuls of baking-powder and four cupfuls of flour. Bake in layers.

Filling—Two pounds of blanched almonds pounded fine, two eggs, one cupful of sugar, one teaspoonful of vanilla.

Nut Chocolate Caramels are a rich, delicious confection immensely popular. Put three and one half tablespoonfuls of butter in a saucepan, and when melted add two cupfuls of molasses, one cupful of brown sugar and one half cupful of milk. Stir until the sugar is dissolved, bring to the boiling point, add four and one half squares of unsweetened chocolate and stir constantly until the chocolate is melted. Let boil until when tried in cold water a firm ball may be formed in the fingers. Remove from the range, add one and one half teaspoonfuls of vanilla and one half pound of almonds blanched and chopped. Turn into a buttered pan, cool and cut in squares.

Fig-Roll—Beat the whites of three eggs to a stiff snow and the yolks until very thick, add half a cupful of sugar to the whites, then another half cupful to the yolks, beating it in thoroughly; mix the two together, then stir lightly in a cupful of flour into which has been sifted one teaspoonful of baking-powder. Bake in a good-sized shallow pan. Make a soft frosting with the stiffly-whipped white of an egg and icing sugar, add half a dozen large figs chopped fine, a dozen large raisins seeded and chopped, and a few blanched chopped almonds. Spread over the cake and roll up; pin a napkin around it until time to use.

Lady-Fingers—Beat the whites of three eggs until stiff and dry, and add gradually, while beating constantly, one third of a cupful of powdered sugar; then add yolks of two eggs beaten until thick and lemon-colored, and one fourth of a teaspoonful of vanilla. Cut and fold in one third of a cupful of pastry flour mixed and sifted with one eighth of a teaspoonful of salt. Shape four and one half inches long and one inch wide on a tin sheet covered with unbuttered paper, using a pastry bag and tube. Sprinkle with powdered sugar and bake eight minutes in a moderate oven. Remove from paper with a knife.

Toasted Marshmallows—One tablespoonful of granulated gelatin, one cupful of boiling water, one cupful of sugar, the whites of three eggs, one and one half teaspoonfuls of vanilla, and macaroons. Dissolve gelatin in boiling water, add sugar, and as soon as dissolved set bowl containing the mixture in a pan of ice-water, then add the whites of the eggs and vanilla, and beat until mixture thickens. Turn into a shallow pan, first dipped in cold water, and let stand until thoroughly chilled. Remove from pan and cut in pieces the size and shape of marshmallows, then roll in macaroons which have been dried and rolled. Serve with sugar and cream.

Macaroons—One pound of hickory-nuts cut fine, four tablespoonfuls of flour and one teaspoonful of baking-powder sifted over them. Add one pound of powdered sugar and the whites of six eggs. Make into small balls and bake in a moderate oven. In mixing, add sugar and eggs, then the nuts.

Nut-Cakes—Beat two eggs and stir into them a cupful of light brown sugar and two tablespoonfuls of sifted flour. Add to them one cupful of nut-meats chopped fine. Spread the mixture in a very thin layer on a well-greased tin and bake ten minutes or until lightly browned, not scorched or blackened. Cut into squares and take quickly from the tin. They will become crisp when cooled.

Jelly-Jumbles—One half cupful of butter, one cupful of sugar, one egg, one half teaspoonful of soda, one half cupful of sour milk, one fourth of a teaspoonful of salt, flour and currant-jelly. Cream the butter, add sugar gradually, egg well beaten, soda mixed with milk, salt and flour to make a soft dough. Chill and shape, using a round cutter. On the centers of one half the pieces put currant-jelly. Make three small openings in remaining halves, using a thimble, and put pieces together. Press edges slightly and bake in a rather hot oven so that jumbles may keep in good shape.

Stuffed Dates—Make a cut the entire length of dates and remove stones. Fill cavities with Brazil nuts, English walnuts or blanched almonds and shape in original form. Roll in granulated sugar. Pile in rows on a small plate. If Brazil nuts are used, with a sharp knife cut off the brown skin which lies next to the shell.

Peppermints—One and one half cupfuls of sugar, one half cupful of boiling water, six drops of oil of peppermint. Put sugar and water into a graniteware saucepan and stir until the sugar is dissolved. Boil ten minutes, remove from fire, add peppermint and beat until of the right consistency. Drop from tip of spoon on slightly-buttered paper.

Sea-Foam Fudge—Put over the fire in a clean saucepan one cupful of light brown sugar, one half cupful of water and a third of a cupful of grated chocolate, and boil without stirring until it spins a thread from the point of a spoon. Have the white of an egg beaten stiff, pour the boiling mixture upon it and stir until it begins to stiffen. Drop from a spoon on waxed paper in little bonbons or pour into a greased pan before it begins to stiffen, and mark into squares or diamonds with a buttered knife.

Pop-Corn Balls—Make some old-fashioned molasses-candy and just before taking from the fire stir in it enough pop-corn to thicken it. After stirring the mixture for a minute, set the kettle at the side of the stove, take the mixture from it by the large spoonful and lay each on greased paper or a greased tin. As it hardens, roll each spoonful into a ball, greasing the hands well first and roll each ball over and over in freshly-popped corn until this ceases to adhere to the surface. Wrap in waxed paper.

Cranberry-Tarts—Make a rich pie pastry and roll very thin. Cut in rounds with a biscuit-cutter, then with a tiny tin tube not more than one half inch across (an open-topped thimble will do) cut a hole in the center of one half of the rounds, and around this make a row of holes; prick with a fork the remaining half of whole rounds, and bake them all lightly. These may be kept for some time, to use as required. Spread the whole rounds with cranberry-jelly, lay the perforated ones on top and serve.

Marguerites—Two eggs, one cupful of brown sugar, one half cupful of flour, one fourth of a teaspoonful of baking-powder, one third of a teaspoonful of salt, one cupful of pecan-nut meats, cut in small pieces. Beat eggs slightly and add remaining ingredients in the order given. Fill small buttered tins two thirds full of the mixture and place pecan-nut meat on each. Bake in a moderate oven fifteen minutes.

Peanut Cream Cookies—Remove the skins from two cupfuls of shelled peanuts and put them through a meat-grinder. Cream together three teaspoonfuls of butter and one cupful of granulated sugar, add three well-beaten eggs, two tablespoonfuls of milk, one saltspoonful of salt, one teaspoonful of baking powder, the ground nuts and flour enough to make a soft dough. Roll moderately thin and cut with a small cutter.

To Blanch Almonds—Put the meats into cold water, bring quickly to the boiling point, drain, rinse with cold water and rub off the skins. If one wishes to powder them, place them in the oven after being blanched and dry thoroughly.

Salted Almonds—Shell and blanch the required amount of almonds, allowing three tablespoons of olive-oil for each half pound. Heat the oil in a frying-pan to blue heat and put in the almonds. Stir gently until all are equally brown. Take from the pan and place upon absorbent paper. When the paper has absorbed the excess of oil, sprinkle the nuts with salt. Cool and serve cold.

Charlotte Russe—Beat the whites of three eggs very stiff and put it with one pint of cream which has been whipped with one half cupful of powdered sugar. Flavor as desired. If individual forms are preferred, heap the frothed mixture on a plate, lay about it yellow lady-fingers, decorating with candied cherries.

Candied Orange-Peel—Remove the peel from four thin-skinned oranges in quarters. Put into a saucepan, cover with cold water, set on the range, bring to the boiling point, and cook slowly until soft, which may be easily determined by piercing with a skewer. Drain and remove the white portion by carefully scraping off, using a silver spoon. Cut the yellow portion into thin strips lengthwise, using scissors. Boil half a cupful of water and one cupful of sugar until syrup will thread when dropped from the tip of a spoon. Cook strips in the syrup five minutes, drain, and coat with powdered sugar. Arrange in a bonbon-dish.

Chocolate-Cream—This chocolate dainty makes an inexpensive cold dessert that usually finds popular favor. It is always a comfort to the housekeeper to know that the dessert is well out of the way long before serving time. Mix five tablespoonfuls of corn-starch, half a cupful of sugar and one fourth of a teaspoonful of salt; then add gradually one third of a cupful of cold milk. Poor the mixture into two cupfuls of scalded milk (which is in the top of the double boiler) and stir constantly until thickened, afterward occasionally, cooking for ten minutes. Melt one and one half squares of unsweetened chocolate in a small saucepan placed over the tea-kettle, or set in a larger saucepan of boiling water. Add three tablespoonfuls of boiling water, and stir until smooth; then add to the cooked mixture. Remove from the range, add the whites of three eggs beaten stiff, and one teaspoonful of vanilla. Turn into a mold, first dipped in cold water, chill thoroughly and serve with cream or a custard sauce.

Custard Sauce—Beat yolks of three eggs slightly, and add one fourth of a cupful of sugar, and one eighth of a teaspoonful of salt. Stir constantly, while adding gradually, two cupfuls of scalded milk. Cook in a double boiler and continue the stirring until the mixture thickens and a coating is formed on the spoon; then strain immediately. Chill and flavor with half a teaspoonful of vanilla.

25

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FARM AND FIRESIDE, Springfield, O.

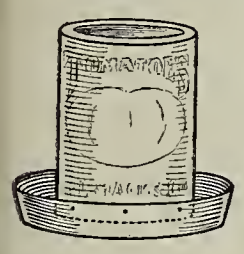
The Housewife's Club

EDITOR'S NOTE—This department has been introduced for the special purpose of helping the women readers of Farm and Fireside in all problems pertaining to the household. Monthly we offer prizes as follows:

Two dollars for the best description and rough sketch of an original, home-made household convenience or labor-saving device; $1.00 for the second best; while 25 cents will be given for all household hints and recipes that can be used. This month's competition closes January 10th. Contributions must be written in ink, on one side of the paper, and must contain not more than 250 words. We would suggest that contributors retain copies of their manuscripts, as no contributions will be returned. Address "The Housewife's Club" Care of Farm and Fireside, Springfield, Ohio.

Drinking-Fountain for Young Chickens

To make this simple device, you will need a tin tomato can and a deep tin pan. Remove the bottom and make a hole in either side of the can near the lower edge. Fill with water, place in the tin pan and you will have a fountain that is easy to keep clean and which answers the same purpose as the expensive ones on the market. Mrs. I. R. A., Pennsylvania.



To Clean Velvet

Stretch the velvet on a table, take a clean piece of flannel dampened in paraffin and rub the pile gently but briskly. When the flannel becomes soiled, take another piece and proceed until the velvet looks bright and clean. This process will not spoil the most delicate color, but will make the velvet look as fresh as when new. Mrs. T. B., California.

Neat Work-Dress

Nearly every woman has old gingham shirt-waists and dresses that she does not like to wear while working about in the kitchen, because the waist and skirt are always parting company. The way I do is this: I buy a yard of chambray or gingham of the same color as the waist and make a peplum, Dutch collar and cuffs. After half an hour's work I have a splendid work-waist that looks neat and becoming. If in a whole costume the waist is fastened in the back, join the waist and skirt with a belt the same color as the dress, and after removing the neckband, put a shaped piece around the neck and stitch down. These dresses are so easy to slip into and are so comfortable. Mrs. M. C., Nebraska.

Crisp Doughnuts

One and one half cupfuls of sugar, one cupful of milk, one half cupful of butter, two eggs, three teaspoonfuls of baking-powder, flavor with cinnamon, with flour enough to roll out. Immerse in boiling lard and fry a golden brown. When taken from the frying-pan, sprinkle at once with a mixture of pulverized sugar and powdered cinnamon. These doughnuts are excellent.
Mrs. J. F. R., Virginia.

Cure for Chilblains

There is no surer relief for chilblains than that of bathing and resting the feet in water in which potato-skins have been boiled. This is an old remedy used by the Indians in old times. It is sure to give immediate relief.
B. H., Ohio.

Removing Iodine Stains

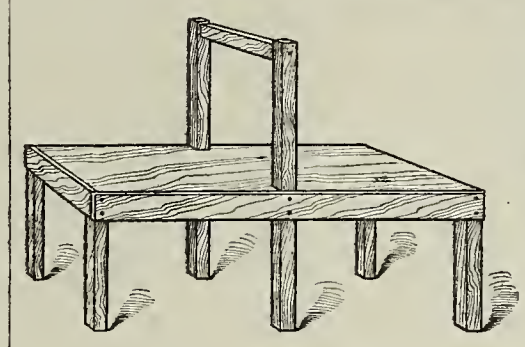
Starch moistened with a little water and spread on the stain, then rubbed with the hands and rinsed thoroughly, will remove iodine stains. If the first application does not entirely remove the stain, repeat process until it disappears. I tried this on an apron and no one could tell that it had been stained. Mrs. S. J. D., Michigan.

Spotless Table-Cloths

The mother of little children knows how hard it is to keep the table-cloth white and spotless. I make doilies of white oil-cloth, notching the edges, and these I put at the children's places. I can make three of these doilies out of one and one half yards of oil-cloth, and they save so much laundering. Mrs. R. C. D., Ohio.

Convenient Wash-Bench

My greatest comfort on wash-day is the wash-bench which my husband made for me. There is room on it for two tubs; the wringer fastens to the crosspiece and the tubs slide under the wringer so that there is no water spilled after the clothes are washed in the first suds. All you have to do is change the tubs, and the clothes are ready to go through the wringer again into the basket. In this way the whole washing,



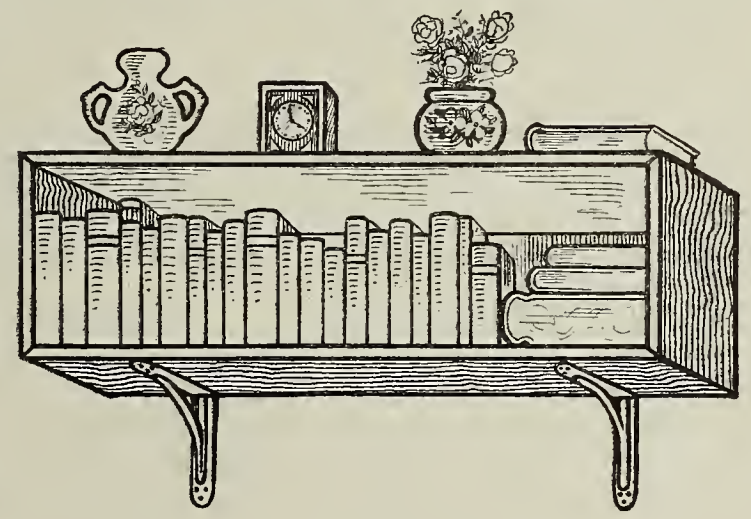
rinsing and bluing may be done without moving the wringer. There is no tipping of tubs nor splashing of water. Be sure to make the bench strong and firm.
Mrs. F. S., Idaho.

To Sharpen Scissors

To sharpen scissors, cut them rapidly on the neck of a small glass bottle or, better still, on a ground-glass stopper. It trues the edges and makes them cut like new. Mrs. M. E. U., Illinois.

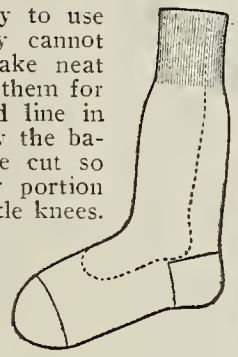
Handy Book-Shelf

This unusually good-looking book-shelf may be made from a box two and one half feet long, ten inches wide and eight inches deep. It is fastened to the wall by means of two brackets. To make it even more secure I drove large nails through the back of the box into the wall. The book-shelf looks very well if painted green and then given a coat of shellac. It will hold quite a few books, and aside from its original purpose, it adds to the attractiveness of a room. B. C., Iowa.



New Use for Old Socks

Here is a good way to use socks that simply cannot be darned again. Make neat little stockings out of them for the baby. The dotted line in the picture shows how the baby's stockings may be cut so that the ribbed upper portion fits snugly over the little knees. It has never been necessary for me to buy stockings for my babies until they were two years old. Mrs. C. P., Oklahoma.



Sweet-Potato Waffles

Nearly every one likes sweet potatoes, and this way of preparing them will be a revelation to those who have only known them in their plain form. Take left-over sweet potatoes and mash. To two rounded tablespoonfuls of the mashed potato add one level tablespoonful each of butter and sugar, one pint of milk and four tablespoonfuls of flour, one half teaspoonful of salt. Mix together and add two eggs well beaten. Pass through a sieve and bake in a hot waffle-iron. Serve with whipped cream flavored with four tablespoonfuls of honey added before whipping. Or, maple syrup may be substituted for the honey.
Mrs. C. B. S., Nevada.

Shrinking Ginghams, Linen, Etc.

Before making ginghams, linen, etc., into dresses and other garments, I always place the goods in a tub or pan and pour boiling water over it, entirely covering the cloth. I let it stand until saturated thoroughly, and after slightly wringing, but not unfolding, I hang it on the line to dry. It is then ready to make up and I do not have to allow for shrinking, and the garment has a much neater appearance. If careful, the goods do not need ironing before cutting.
Mrs. M. E. U., Illinois.

Apple-Dumplings

Pare and core sour, juicy apples, cutting them in halves. Have all your ingredients ready before beginning to mix your dough: Sugar, soda, milk, lard, salt, flour and apples. Make a dough as for soda biscuits, only adding a little more lard to make it shorter. Take a bit of dough on the kneading-board, roll as for pie-crust, then cut in pieces long enough to cover an apple, allowing for lapping the edges. Put two apple halves in one dumpling. Sweeten to taste, and cover the apple and sugar with dough. Lay the dumplings in a well-buttered bread-pan smooth side up and place a bit of butter on the top of each one. Sprinkle them with sugar, bake one hour in a moderate oven and serve with sauce or sugar and cream.
Mrs. U. S., Missouri.

Dried Pumpkin

A good way to keep pumpkin is to dry it. Cut into thin slices and place around the stove or in some warm place until thoroughly dry. When wanted for use, soak an hour or two, then cook in the usual way. Squashes may be dried, also.
Mrs. J. L. R., Ohio.

The Housewife's Letter-Box

We shall be very glad to have our readers answer any of the questions asked, also to hear from any one desiring information on household matters. There is no payment made for contributions to this column. Address the "Housewife's Letter-Box," Farm and Fireside, Springfield, Ohio.

Questions Asked

D. S., of Kansas, would like directions for washing white plumes.

Can readers tell me the cause of cakes falling in the center and what I can do to prevent it? Mrs. A. Z., Ohio.

Can some one tell how to make pretty "throws" out of milkweed seeds to throw over pictures? Mrs. M. S. L., Michigan.

Would appreciate recipe for canning sweet potatoes. Reader, Kansas.

Mrs. J. A. F., of Louisiana, wants recipe for making scrapple.

S. E. P., of Texas, wants recipe for making orange-marmalade in which the peel and all is used.

Questions Answered

Mrs. A. J., of Tennessee—In addition to the sweet-potato recipe on this page, if you will look in the October 25th Household Department you will find several excellent recipes for using sweet potatoes.—Editor.

For Miss J. P. D., Texas—Oxalic acid is excellent for removing stains. There is nothing better for removing iron rust, fruit, grass, ink and other stains. I do not, however, use the crystals pure. I soak my clothes just as I do for washing, then when I get ready for them I dissolve a large pinch of oxalic acid in one half teacupful of boiling water. Wring the clothes out and place the stains in the hot solution for ten minutes. Then wash in the usual way in soap-suds to which a little ammonia or vinegar has been added. Rinse well and dry. If the stains are small or the goods of delicate colors, drop the hot solution on stains with a toothpick. In this way the finest fabric will not suffer and the ammonia will restore the color.
Mrs. K. A. L., New York.

Home-Made Hominy, *for Mrs. H. C., California*—Dissolve two rounded tablespoonfuls of powdered lye in one gallon of hot water. Add three quarts of shelled white corn. Boil fast until the dark ends slip over easily when rubbed in cold water. Wash in several waters. Soak in cold water overnight, then cook in plenty of water until tender. Salt to taste.
Mrs. W. L. E., Oklahoma.

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We guarantee satisfaction or money back on return of goods. Reference: The Seymour Trust Co., Seymour, Conn. Order today. A dollar's worth is good for a winter's wear. Goods delivered prepaid.

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When ordering, be sure to state size, color and your choice of worsted or wool. Send for descriptive folder.

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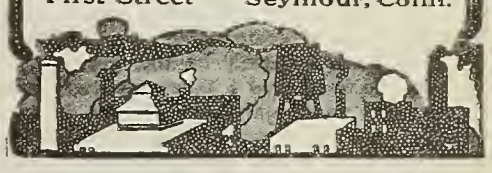

Reg. U. S. Pat. Off.

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And they fit and give proper combustion.

They do away with smoke and smudge. But get the one for your lamp.

I make a chimney to fit any known burner and put my name on it.

My book on lamps will be a safe guide. It is free. Address

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Feeding Farm Hands

Every farmer's wife knows what tremendous appetites farm hands usually have; but while they eat well they work well, too.

Here's a good suggestion about feeding farm hands. Give them plenty of Quaker Oats. A big dish of Quaker Oats porridge with sugar and cream or milk is the greatest breakfast in the world for a man who needs vigor and strength for a long day's work. The man that eats Quaker Oats plentifully and often is the man who does good work without excessive fatigue. There is a sustaining quality in Quaker Oats not found in other foods, and for economy it is at the head of the list. Besides the regular size packages Quaker Oats is packed in large size family packages, with and without china.

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and in no time you will have confidence in your own ability. These are the patterns that even the woman who knows but little about sewing can use with success.

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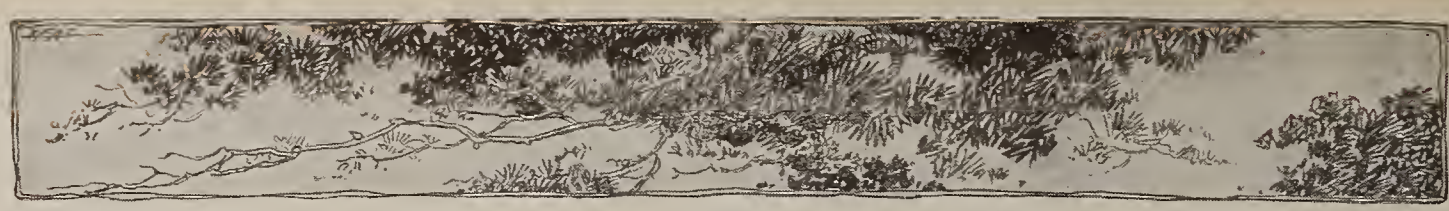

Miss Selina Lue and the Soap-Box Babies

[CONTINUED FROM PAGE 24]

Lord floated mine and Charity's mother's ark on the right mountain, and He'll do the same by you and your ma. Now, don't go and mistrust His wisdom in selecting mountains."

"Oh, Miss Selina Lue, I know you would say the right thing about it all. What would I do without you?" and Miss Cynthia's slim white hand stole in Miss Selina Lue's strong brown one, whose sympathetic clasp was only rendered the closer by the smudge of sorghum off the Kinney molasses pitcher which held their fingers tight together.

"Looks like I couldn't hardly stand it if I couldn't git even the edge of my shoulder under any burden you was a-carrying, honey. Now, I've got something to show you that'll take your mind offen all distractments. Lay Blossom in her box and come along of me to the barn."

Considering its relation to the grocery and the bluff in general, the barn was a most ostentatious structure. It was large and roomy and sat on the brow of the bluff overlooking the river, while the little handful of houses that clustered about the grocery seemed stranded at its feet. It had been built for the teams that had worked on the dam up the river, and had become the property of the grocery owner for a song when the work that had brought the horses and men to the settlement was finished. The army had moved on, leaving the barn and the grocery in a sort of guardianship of the few families which elected to stay and find work on the river or over in the city. Only the hill mansion of Mrs. Jackson Page farther up the river on the bluff had any such outlook, and for all its wide, tall-pillared verandas and spreading wings it failed entirely to dwarf the imposingness of the barn.

"Is it a new calf, Miss Selina Lue?" demanded Miss Cynthia as they entered the door together.

"Lands alive, child, the little spotted one ain't more'n two months old, what's sold to Mr. Si Bradford's cousin on 'count of the richness of Charity's milk to raise from."

"I beg your pardon, madam," said Miss Cynthia with elaborate courtesy, as she threw Charity a bough of sugar-maple leaves she had pulled for that exact purpose on the way up. Charity gave her tail a friendly switch and her large soft eyes roamed over the radiant vision by her stall with placid appreciation.

"Don't you and Charity gossip too long," called Miss Selina Lue from half-way up the ladder. "Mind your dress don't get snagged on that nail there."

A little breathless, Miss Cynthia pushed her head up through the opening and cautiously swung herself to the floor above; then halted and stood spellbound. The barn loft had become another world! A large window that stretched half across the end, opened out to the blue hills across the valley, and the river wound through the picture like a silver thread. On the walls were rough sketches and some pictures, bold and startling, and in the middle of the room stood an easel on which was a huge canvas. A cot with one of Miss Selina Lue's old patch-work quilts covering it stood in one corner, and a familiar gray coat hung from a peg.

With horror Miss Cynthia realized that she was in the camp of the enemy, and her first inclination was for precipitous flight, but Miss Selina Lue's bright eyes held her, and for the life of her she could not voice her dismay to that plainly overjoyed lady.

"Now, there!" she exclaimed, breathless from the climb and from delight. "I've got you here at last, and I can see how happy you are from your face. Ain't it a surprise to have a art-gallery jest sprout up at your back door unbeknownst to you or anybody else? It do beat all how that boy can paint! Now come here and get a good light on this one here in the middle. You would think that any light up here would be a good one, with that big window he knocked in the wall there—Mr. Flarity helping him of nights and Mr. Dobbs a-putting in the glass—but it ain't, and you've got to step around to git jest the right view of them."

Miss Cynthia stood before the canvas, lost, unable to utter a word. He had painted the sunset hour on the wharf and the roustabouts unloading bales of hay from up the river in the mellow light. It was a tremendous, decorative thing of which Miss Cynthia had never seen the equal.

"It's a order for a big building in Chicagy, and Miss Cynthie, what do you think? It's to be hung on the walls of a room where workingmen can go and have meetings, and some big rich men are going to pay him ten thousand dollars for this one and two more! I tell you he don't make nothing but a-number-one, triple X art, he don't! All three of 'em are to be about the doing of something, and I think it will be mighty uplifting to men that has to work as hard as them men does to have a great artist paint pictures of the doing of it. He says this one is his best—has got more climate than the others."

"More climate?" asked Miss Cynthia in a small voice.

"Yes, climate all around it; like that sunset light on the prow of the boat and the men's backs and sich."

"Didn't he call it atmosphere?" ventured Miss Cynthia delicately.

"Thats it! I knew it had something to do with the weather. Anyway, I am learning to know it when I see it, like out the back door at early sun-up when I take in the Flarity twins. It seems like all the men in the painters' union tries to paint with it. Once along come a man named Singer and painted it better'n any of 'em 'cause it's borned in some folks, like the making of pies and cake and sich. That's a copy of the picture the man done of his own mother, over there by the cot. Mr. Alan always takes it with him 'cause he ain't got no picture of his own mother, who had the mischance to die when he was borned. He says the picture means everybody's mother, anyway—and I think it do."

"Oh, Whistler's mother! How beautiful! I wonder if he made the copy himself?"

"Yes, he done it over across the ocean—in Jerusalem, I think. And the man's name is Whistler instead of Singer. I remember it was some kind of a musicianer. He talks and tells me all about every kind of art-thing and sometimes I am kinder slow at catching on, but I like it and feel like I was a-hearing a person come back from heaven and a-telling about what's over there. And Mary Ellen Dobbs and Mis' Kinney and the rest feels the same about it, him being jest as kind about telling and showing them as can be. Mary Ellen left Ethel Maud to watch the pot for dinner the other day while she come over here to see a picture he had painted of her back yard and clothes-line I was a-telling her about, and the child let the bacon and cabbage burn and then tasted 'em! When her mother got back she ran screeching something orful with a burnt tongue. Mr. Alan put some of his own tooth-wash on it to make her hush; he's such a hand with children as I never saw often."

As Miss Selina Lue talked, Miss Cynthia was looking from one picture to another, rapt in delight. The rough sketches of men and draft-horses and great loaded carts and straining mule-teams were awe-inspiring, but were relieved by tender bits of landscape and quick sketches of the children in charming, characteristic poses. How strange it seemed to find them hanging on the walls in the old bluff barn! And yet perhaps no stranger than to find the painter himself coming and going among the bluff people in perfect sympathy and friendship. For a moment her heart was abased before him in admiration—and could it have had a touch of longing?—when Miss Selina Lue precipitated the old enmity upon her again.

"And this here picture of you, Miss Cynthie, is just done to a turn. When I first seen it I took such a fit over it that he promised to do a real big likeness of you some day. But whatever made him paint the back of you I don't know. It was on the river road, wasn't it?" And Miss Selina Lue picked up a small sketch that stood against a pile of books on the table.

The recently-melted blood in Miss Cynthia's veins froze again stiff and hard as she gazed on the picture in Miss Selina Lue's hand. It was a bit of the river road with the forked tree in the distance, and retreating down the vista was a back view of herself, skirts switching, ribbons flying, and roses on her hat as stiff as possible. Every line in the figure breathed sniffness and snubbery, and it was the cleverest bit of work she had ever seen. Oh, why had she passed him stonily there in the lane, only to give him such a chance? The wretch! And under the picture was a line that added injury to the insult, "What care I how fair—" Her face burned and an explosion was imminent, but was cut off in the fuse by Miss Selina Lue.

"I think the writing under it is so sweet and good, and like him; for of course he means he likes you jest as much with your blue eyes and yellow hair, even if it ain't the style he mostly admires. Looks don't make no difference in his liking though a heap of men is all for looks, and nice goodness in women don't interest them noways. Not that you ain't got looks in plenty of your own kind. Dearie me, if I ain't left the grocery to mind itself! I must hurry on down, but you come along when you're done looking. He says his friends are always welcome to come up and look, and I know he means you more'n anybody."

Miss Selina Lue paused as she gathered her stiffly-starched gingham skirts about her preparatory to descending the ladder. "Honey," she said, "I've jest got to tell you what he's a-going to do for me. You know that little, old, faded tintype I've got, what is all that's mortal left to me of Adoniram Millsaps? Well, he's going to make me a life-sized likeness of it, all colored according to Mr. Dobbs, who do favor Adoniram some. I knew you'd love him, too, for being so feeling towards me, on 'count of Adoniram being snatched so sudden-like from this world. You know better than any one how he is jest still one of the whys of me."

"Oh, Miss Selina Lue, I love—I love his doing it for you!"

"Honey child, I knew you would. Mr. Alan's a fine man. He couldn't paint sich pictures if he wasn't beautiful inside his self. The wonderful part is the thinking of 'em; the painting 'em is jest work."

[TO BE CONTINUED]

Humorous Bits

The Dictionary Caught Napping

I know I'm right,
I am, despite
What dictionaries say about it!
For "n—o—t—
H—i—n—g,"
Spells something! How can people doubt it?

NIXON WATERMAN.

What Could He Say?

TEACHER (to dull boy in mathematics)—You should be ashamed of yourself. Why, at your age George Washington was a surveyor.

PUPIL—Yes, sir; and at your age he was President of the United States.—Boston Transcript.

Cold Comfort

IN A country store a young boy was under discussion by the cracker-barrel committee. Jones had just remarked, "That boy's a regular fool. He don't know nothing; he doesn't know enough to come in when it rains." Then he discovered the boy's father, who had overheard the remark, and wishing to appease him, he said, "Wall, Sam, 'tain't your fault. You learned him all you knew."—Lippincott's.

Attempting a Diagnosis

MRS. C. was overhauling a lot of old clothes, and her little daughter, Rebecca, aged four, was an interested spectator. When one garment was brought to light the little girl asked what were the "green speckles" on it. Her mother explained. Some days later a friend called whose little girl was somewhat freckled. After their departure, Rebecca was thoughtful for some time and then inquired, "Mama, was that little girl's face mildewed?"

J. R. McNAUGHTON.

'Twixt Cup and Lip

[CONTINUED FROM PAGE 29]

strove to stop him by other means than a bullet, and the discharge of firearms would be heard by the *carabinieri*.

He felt his way in the dark to the passage, and groped along its tortuous length until he reached the wall of boulders. Beginning at the top, he dislodged them, one by one, and placed them behind him. He worked warily, lest some harmless-looking peasant might be tending a flock of goats within earshot. Though his fingers were torn and bleeding, he pulled down the barrier in less time than it had taken Luca and his companion to construct it. Soon a gleam of daylight came through a crevice. The sight cheered him as a sail on the horizon inspires a shipwrecked sailor on a raft in midocean. Yet he grew more cautious than ever. When the highest boulder of the outer wall was removed, he crept over the rest till he could peer without. He had to shade his eyes deeply with his hands before he could endure the light, but there was no one visible within range of vision.

The shifting of a few more stones gave a clear road. He wriggled on, not too hurriedly, still guarding his eyes. Far below, on a track by the side of a watercourse, stood a group of dismounted cavalry. Immediately in front of the cavern's mouth ran the dried-up bed of the former torrent, while to right and left there was a rough path which, on the right, led to a distant hamlet.

Crawling on, inch by inch, Vyner made sure that there was no lurking enemy near the cavern. Then he dropped to a lower rock, when he was immediately hidden from watchers that might be peeping furtively from the village. As his eyes grew accustomed to the glare of the sun, his progress became more rapid. Fifteen minutes after he had seen daylight he was standing in the midst of an excited group of Italian soldiers, and frantic signals were being made to searchers on the mountain to close in on the peaceful-looking huts. Fifteen minutes later he was identifying seven manacled men, but three of them he failed to recognize, and one of the three was Nuccio. Even in the delirium of his regained freedom, Rupert kept his head clear; Nuccio should be given a reasonable chance of living a few more years, and he must not be the only one favored.

Rupert was by no means shy. He kissed Mary Hassell quite brazenly when she flew to the roadway from the balcony of the Hotel des Temples. She was the first to hear the clatter of the *carabinieri's* horses, the first to see that one rider was not in uniform. For a moment Rupert thought of nothing else than that Mary was clasped to his heart. Then he held her at arm's length and looked into her eyes.

"I couldn't help it, just this once, little girl," he said quietly. "But, of course, you have read my letter, and that makes things different."

"Different, yet the same," she whispered, and her lips quivered.

"No, not the same for me, dear."

"You don't want to marry Mrs. Winthrop, do you?"

He was really somewhat hysterical, despite his cool bearing, for he had gone through a good deal since they parted, so his comment on Mrs. Winthrop may be pardoned—at least Mary thought so.

"Well," said Mary, clinging around his neck again, and beginning to weep.

Why, even the gallant *carabinieri* were affected, while Rupert dared not say a word lest he, too, should break down. But Mary didn't care. She just cried contentedly, and nestled closer, and Rupert murmured something incoherent about his stupidity in imagining that Luca and his comrades were brigands, whereas they were honest fellows who had done him the best of good turns, which he had basely requitted by cracking some of their skulls.

The Italian authorities did not agree with this view. Unfortunately for Luca, they mean to hold to their opinion during the next ten years.

THE END

Farm and Fireside's Christmas Gift To Every Subscriber

THE 1910 Baby Calendar is the most beautiful and fashionable calendar of the year, and is printed in many colors on heavy plate paper, eleven by seventeen inches in size. It has a special patented hanger and will come to you all ready for hanging up in your living-room, where every member of the family, from mother and father down to the baby, will enjoy it every day of the year. No advertising of any sort or description is printed on it. You will love the baby picture that adorns this handsome calendar. It is the most remarkable and the most attractive baby picture ever painted.

Until December 30th Only

Every time you look at the sleepy boy on the Baby Calendar you will want to yawn, too. You can have no idea how beautiful and charming this baby is till you have the big colored picture hanging up in your house.

FARM AND FIRESIDE has been greatly enlarged and improved, and the subscription price raised to 50 cents a year. If you send your subscription now before December 30th, you can obtain the greatest of all farm papers at just half price, and you will receive the beautiful Baby Calendar without cost, postage prepaid.

The Baby Calendar is the most Beautiful Calendar of the year. It is 11 by 17 inches in size and is Printed in Full Color.

The 1910 Baby Calendar

THE 1910 Baby Calendar is the handsomest and finest calendar ever offered to its readers by a farm paper, and you will receive it absolutely without cost, if you send your subscription to FARM AND FIRESIDE before December 30th. Not only will you receive the Baby Calendar without cost, if you send your subscription before December 30th, but you will be entitled to the old, low subscription price to FARM AND FIRESIDE.

WE WANT every FARM AND FIRESIDE family to have the 1910 Baby Calendar. If your present subscription has not yet expired, we want you to renew now in advance, so as to receive the calendar and to take advantage of these low prices. The calendar will be sent to you, without cost, carefully packed in a tube, postage prepaid. Send your order to-day so as to receive the beautiful calendar by Christmas Day. Use the Order Blank below.

The New and Greater
Farm and Fireside

The new and greater FARM AND FIRESIDE will be the biggest and best farm paper published. FARM AND FIRESIDE'S covers will be the prettiest and most expensive covers on any farm paper.

Herbert Quick, our new editor, is a farmer himself and has lived among farmers all his life. He has been in addition, a writer of national reputation, a successful business man and mayor of Sioux City, Iowa.

The new and greater FARM AND FIRESIDE will show you how to get bigger crops, how to raise better live stock, how to make more money out of every department of the farm.

The Farmers' Lobby

FARM AND FIRESIDE has established for its readers a lobby for farmers at Washington.

The director of FARM AND FIRESIDE'S Farmers' Lobby will be Judson C. Welliver, one of the best known legislative writers in the country. He will attend the sessions of the United States Senate and of the House of Representatives. He will tell you in FARM AND FIRESIDE how the votes were cast on matters of interest to farmers. You will get this service without cost.

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Until December 30th you can obtain FARM AND FIRESIDE at the prices given below. The new price is 50 cents a year. If you send us a subscription on the name blank below you will receive the 1910 Baby Calendar without cost.

$1.00 Send only One Dollar for a four-year subscription to Farm and Fireside—ninety-six issues of the greatest farm paper published. By subscribing now for four years you will save $1.00. You will receive the 1910 Baby Calendar without cost, postage prepaid.

50c Send only fifty cents for a two-year subscription to Farm and Fireside—forty-eight issues of the greatest farm paper published. By subscribing now for two years you will save 50 cents. You will receive the 1910 Baby Calendar without cost, postage prepaid.

35c Send only thirty-five cents for a year's subscription to Farm and Fireside—twenty-four issues of the greatest farm paper published. By subscribing now for one year you will save 15 cents. You will receive the 1910 Baby Calendar without cost, postage prepaid.

If you are a present subscriber your subscription will be entered to begin the month after your present subscription expires. If your subscription has expired, or if you are a new subscriber your new subscription will begin with the next issue. Use the name blank below.

Mail Your Order Before December 30th

The Biggest and Best of
All Farm Papers

The new and greater FARM AND FIRESIDE is going to interest every member of the family. Besides all the farm news, the fireside departments will be bigger and better than ever before. This winter you will get in FARM AND FIRESIDE a complete thrilling novel, many delightful short stories, a complete department for children twice a month, and the latest fashions. Besides all this, FARM AND FIRESIDE will bring you on its cover, twice every month, a beautiful high-art picture in colors.

Lewis and Politics

One of the most successful features in FARM AND FIRESIDE—if thousands of enthusiastic letters from our readers are any indication—is the page of politics every two weeks from the pen of Alfred Henry Lewis. Hot-shot talks from Mr. Lewis' pen will stimulate the minds of FARM AND FIRESIDE readers on the political subjects of the day.

The Fashion Department will be a fashion magazine in itself. There are to be more patterns each issue of FARM AND FIRESIDE than we have ever before shown—patterns which are easy to follow and have a stylish air of their own.

Christmas Post-Cards Without Cost

YOU can get the most beautiful set of 25 Christmas post-cards without cost. Every one printed in gold and many colors, and all packed in a handsome colored box. You will find a picture of some of the post-cards on page 32 of this number.

How To Get the Cards

You can obtain the 25 Christmas Post-Cards in two ways.

1st. Without Cost. We will send you the box of 25 Christmas Post-Cards if you will send us two subscriptions to FARM AND FIRESIDE—one of the two subscriptions can be your own. Each of the two subscriptions may be for four years, or two years, or one year at the prices given above. But remember that you must send two different subscriptions. The Baby Calendar will be sent with each of the two subscriptions.

2nd. We will send you the box of 25 Christmas Post-Cards if you add 15 cents to the price of your subscription to FARM AND FIRESIDE. You will receive the Baby Calendar free.

Use The Order Blank Opposite

To Present Subscribers Although your subscription to FARM AND FIRESIDE has not yet expired, it will pay you to renew now in advance. You will thus obtain the old low prices on FARM AND FIRESIDE and will receive the Baby Calendar without cost. Your new subscription will be entered to begin the month after your present subscription expires.

To Past and New Readers If your subscription has expired or expires this month, or if you are not now a subscriber, send your subscription now, and get FARM AND FIRESIDE at the old low prices, and obtain the Baby Calendar without cost.

Write Your Order Here

If you do not wish to cut this page, write your order on a piece of paper.

Date.....

Farm and Fireside, Springfield, O.

Inclosed please find $..... for which enter my subscription to FARM AND FIRESIDE for .....years, beginning with..... month of.....

Also send me, without cost, the 1910 Baby Calendar, packed in a tube, postpaid.

Name.....

Street or R. R. Address.....

Town.....

(Dec. 10) State.....

If you send two subscriptions you will get the 25 Christmas Post-Cards, also. Use the space below for the second name.

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$1000.00 In Gold

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ALSO A

$3.50 Pail of Wilbur's Stock Tonic on Our Special Xmas Offer

where we have no agent, to every person sending us the attached coupon, or who writes us the information asked for in the coupon.

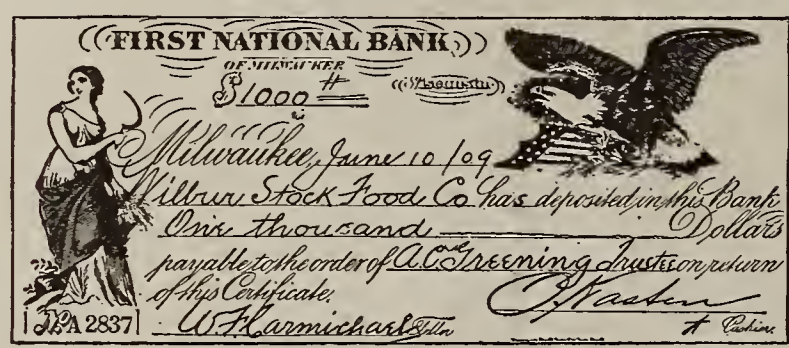
We have deposited One Thousand Dollars ($1,000) in Gold with the First National Bank of Milwaukee. This $1000.00 will be given away in prizes in the most original prize contest ever conducted. See "Certificate of Deposit" and list of cash prizes below.

This $1,000.00 prize contest is open to every person who writes us the information, asked for in the coupon, or who fills out and sends us the coupon.

The details of the contest will be sent at once. We will also send a beautiful and valuable present, no matter whether you enter the cash prize contest or not.

Remember, you receive this handsome present at once absolutely free, and besides may win the first prize of Five Hundred Dollars in Gold.

Remember, too, that it requires no special knowledge to compete for this great prize. Any one in the family can compete—Father, Mother, Boy or Girl—or all of them together.



Mr. A. C. Greening is a Notary Public in the County of Milwaukee, and is acting as trustee of the $1000.00 prize contest fund for the Wilbur Stock Food Company.

education, or go a long way towards completing a college course.

It would pay for a trip to Europe or an extensive journey through America.

If it were required for no other use, it would start or increase a bank account very nicely.

You will surely decide that it is worth trying for when you consider that the trial costs nothing. Besides you receive a valuable present if you will simply write us or

SEND THE COUPON

Better do it now while you have it in mind. Some one is going to get the $500.00 and every one who writes or sends the coupon is sure of the special present FREE of cost.

It will require only a few minutes of anybody's time. No canvassing or selling goods is required, just a few minutes work in the evening or at any spare time. The cash prizes are:

First Prize		**$500.00 cash**
Second Prize		100.00 cash
Third Prize		50.00 cash
4 Prizes,	$25.00 each	100.00 cash
10 Prizes,	10.00 each	100.00 cash
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100 Prizes,	1.00 each	100.00 cash
127 Prizes		**$1000.00 cash**

Think what could be done with that extra $500.00

It would build a comfortable addition to the house. It would furnish your home complete. It would build a granary or an extension to the barns. It would give a young person a business

We don't have to tell people any more how good Wilbur's Stock Tonic is. Its place is established among the farmers and feeders of the country. Those who have tested it accept its saving in feeds and the improved condition of live stock as a matter of course and order it regularly. Those who [illegible] the first trial are surprised at the results as they do not at first realize how a small amount of Wilbur's Stock Tonic can bring such results.

The secret of it is very simple. Under ordinary conditions there is a large waste of the nutrient element of feed. A right tonic increases the powers of digestion and assimilation and enables the animal to get all there is from the feed besides increasing the appetite. With the dairy cow the milk-producing feed is all assimilated and converted into milk when the digestive functions are kept in perfect condition. With horses it regulates the bowels, softens the stomach, purifies the blood and fills the animal with vitality and action. For mares with foal it acts as a wonderful tonic and invigorator. For raising colts to strong, healthy animals, it has no equal. With steers and hogs the fattening elements of feeds are all appropriated; with fowls the full complement of feed is turned into eggs.

Wilbur's Stock Tonic

is simply nature's corrective elements, that maintain perfect health and condition, give relish to the feeds and aid in digestion, as do the grasses and herbs in the green pastures. It not only increases the efficiency of feeds, but it fortifies live stock against disease and saves veterinary bills and loss of profits and of time.

Send today for the FREE TRIAL PAIL, the particulars of our $1,000 prize contest and a beautiful and valuable gift.

Our References—First National Bank, Milwaukee, or any other bank in America; any Commercial Agency in America; any Agricultural Journal in America.

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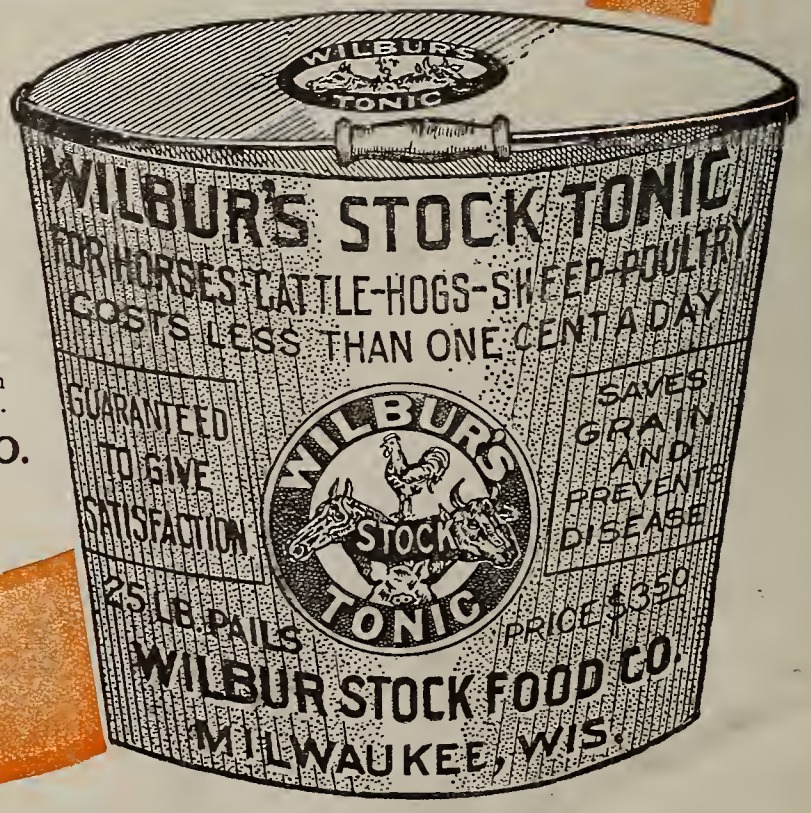
654 Huron St.
Milwaukee, Wis.



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Milwaukee, Wis.
Gentlemen: Please send me the
25-lb. Pail of
WILBUR'S STOCK TONIC
as per Special Xmas Offer;
also the
SPECIAL GIFT
and the particulars of your
$1,000 CASH PRIZE CONTEST

Name.....

P.O.....

Freight Station.....

State.....

Kindly fill in here the number of live stock you own;

.....Hogs.....Cattle.....Horses

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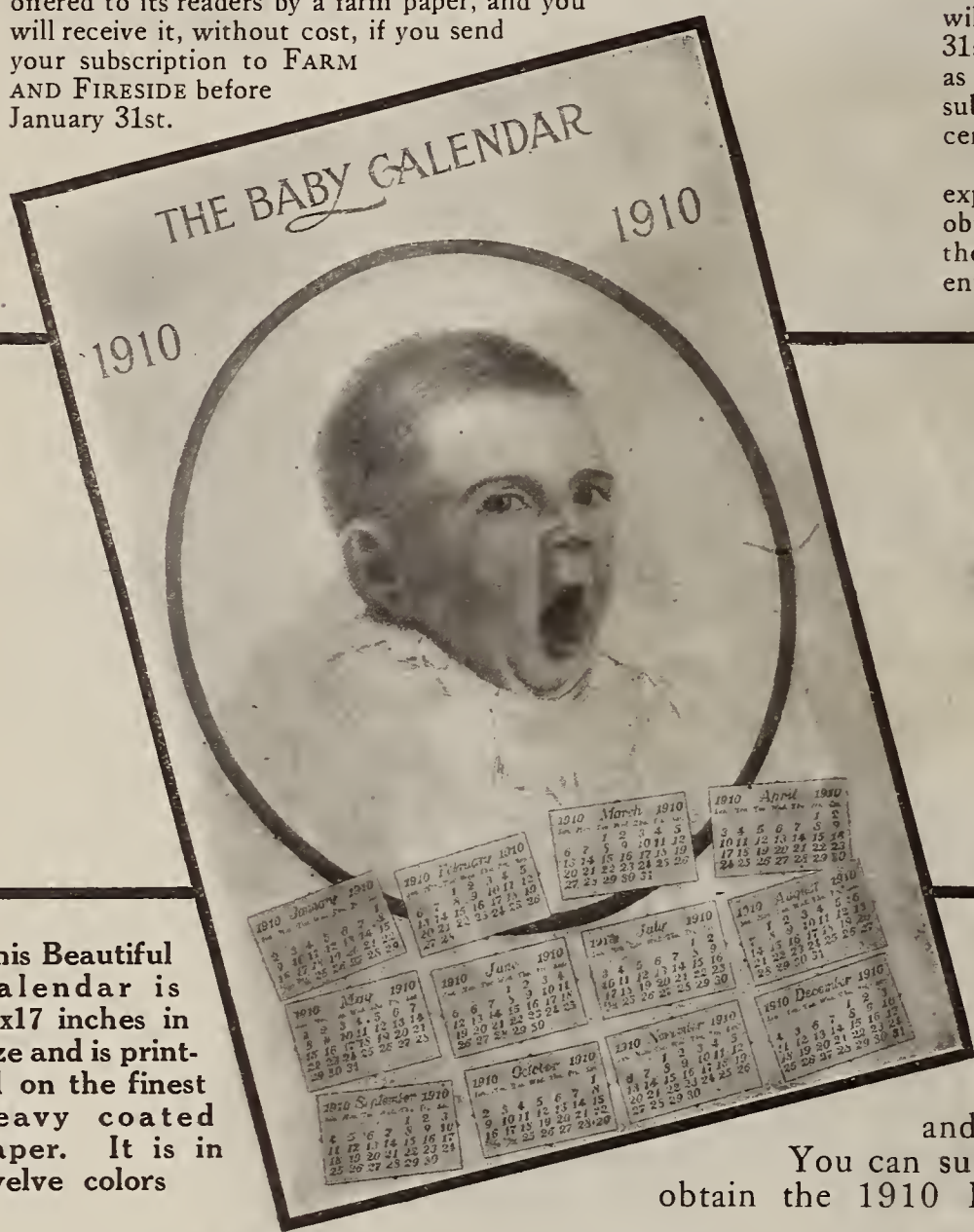
The 1910 Baby Calendar

THIS is the most beautiful and fashionable calendar of the year, and is printed in many colors on heavy plate paper, eleven by seventeen inches in size. It has a special patented hanger and will come to you all ready for hanging up in your living-room, where every member of the family, from mother and father down to the baby, will enjoy it every day of the year. No advertising of any sort or description is printed on it.

You will love the baby picture that adorns this handsome calendar. It is the most remarkable and the most attractive baby picture ever painted. Every time you look at this sleepy baby you will want to yawn, too. You can have no idea how beautiful and charming this baby is till you have the big colored picture hanging up in your house.

We want every FARM AND FIRESIDE family to have the 1910 Baby Calendar. It is the handsomest and finest calendar ever offered to its readers by a farm paper, and you will receive it, without cost, if you send your subscription to FARM AND FIRESIDE before January 31st.



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As you know the subscription price to FARM AND FIRESIDE was raised from 35 cents to 50 cents a year on November 10th.

Most FARM AND FIRESIDE readers already have taken advantage of our special offers by which they could subscribe for the new and greater FARM AND FIRESIDE at the old low prices. It seems only fair that **every** reader of FARM AND FIRESIDE, old and new, should have the chance to subscribe at the old prices.

Special Subscription Prices

For the benefit of those readers who have not yet subscribed, we will extend our low-priced offers for one month longer, until January 31st. You can subscribe to FARM AND FIRESIDE until January 31st as follows: Four-year subscription to one address, $1.00; Two-year subscription to one address, 50 cents; One-year subscription, 35 cents. Every subscription will include the 1910 Baby Calendar.

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You Will Receive

The 1910 Baby Calendar

Without Cost If You Send Your Subscription

Before January 31st

Use This Order Blank

WE THINK it only fair to give those readers who have not yet renewed their subscriptions to FARM AND FIRESIDE a final last chance to subscribe for the new and greater FARM AND FIRESIDE at the old low prices and to obtain the 1910 Baby Calendar without cost. You can subscribe at the low bargain prices given below and obtain the 1910 Baby Calendar without cost until January 31st.

An Extension of Time For 30 Days

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FARM AND FIRESIDE

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"The Best Rural Schools in America"

Dr. A. E. Winship, Editor of the Journal of Education

Every good American takes due pride in our system of country common schools; but no one, even before the report of the Country Life Commission, could hold them to be above improvement. Since we opened the question editorially October 10, Farm and Fireside has been receiving letters from farm parents who realized the defects of their local schools, but who were at a loss in grasping the problem of their betterment. In this article, Dr. A. E. Winship of Boston, an expert educator and journalist of repute, goes directly to the root of the matter. He writes after personal investigation of the school system worked out by the people of Page County, Iowa, under the guidance of their county superintendent, Miss Jessie Field. In the appended letter Miss Field gives a few details of her work. We hope in the near future to secure for our readers a fuller study of the methods that have made Page County "the best in the country for rural schools."—EDITOR.

COUNTRY schools should be for country children. Rural school-books should be focused for children of the farm. Rural school-teachers should love rural life and not always be longing for city privileges.

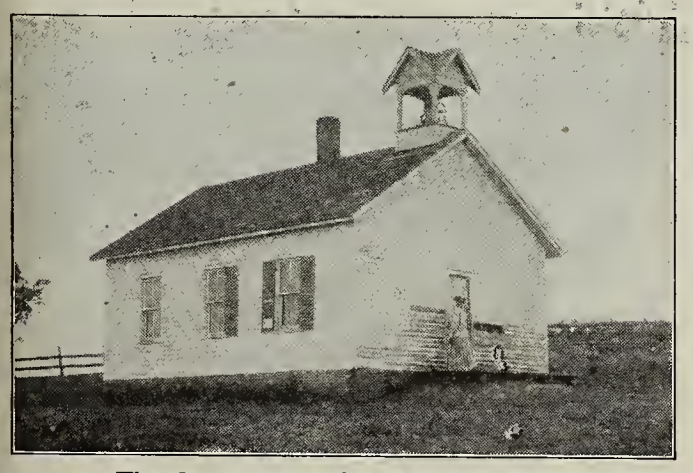
Consolidation of rural schools has its advantages, which I would be the last to discount, but a consolidated rural school should be kept as distinctly rural as should a one-room school. When a consolidated school becomes a small sample of a city school, it is as far from its mission as a Shetland pony would be mated with a Norman Percheron.

A first-class, one-roomed school-building with fifteen children is worth ten times as much as a consolidated rural school in a twenty-five-thousand-dollar building with a citified course of study and a diluted metropolitanized teacher trying to veneer the boys and girls.

There are thousands of first-class rural schools in the country, but the best county all in all for rural schools, so far as I know, is Page County, Iowa, where there are one hundred and twenty-eight one-roomed buildings, and one consolidated school that remains as truly rural as any of the one-roomed schools.

What are the characteristics of an ideal rural school? Such a school is not primarily to make every boy a farmer, is not to keep every boy and girl on the farm, but is first of all to prevent any prejudices against the farm, against country life. It is to educate boys and girls to make the most of their early life on the farm, whether they live in city or country. If they stay on the farm, they are to make better farmers than their fathers. They are to make their fathers better farmers because their sons and daughters are studying in rural schools.

The country boy's books should not deal with highly painted tops, tasseled hoops, fluffily gowned dolls, Lawson pinks, toy dogs or calico ponies, but rather with



The Country School as it Too Often Is
Are teacher or pupils to be blamed for losing enthusiasm in such cheerless surroundings?

country fields, barn-yards and houses, homely flowers, standardized corn, shepherd dogs, Jersey cows and Percheron colts.

A country boy's arithmetical problems should have to do with insects that destroy crops and birds that destroy the insects, with weeds that scatter woe and the birds that live on the seeds of weeds, with the yield of varieties of grains, vegetables and fruits, with

A Young Corn-Grower and His County Superintendent
"The picture was taken with the winner of the prize for yellow dent at our county corn show. It is said not to be a very good picture of me, but I like it—especially the boy and the corn."—Miss Field

the expense and profit in keeping hens and bees, dairy cows and beef steers.

A country boy's reading should be of real life with Nature and human nature, away from the artificiality of the city.

He should be introduced to the city as a necessary feature of human life, just as the gang plow, the planter and the harvester are necessities in modern farming. To him the city should be the making of the best of conditions that cannot be avoided.

As a reactionary condition, the study of the city should teach the farmer's children the importance of home and farm sanitation, school-ground cleanliness and school-room neatness.

All this is achieved in Page County, Iowa, where there is not one school with slovenly grounds, not one without trees and shrubs and flowers in their season, not one with signs of dilapidation, in school-house, shed or outhouses, not one with filthy or obscene conditions, not one without provision for washing the hands, not one in which all the children are allowed to drink from the same dipper, not one in which a dipper used for drinking is allowed to be dipped into the water-pail, not one school-room unswept regularly.

The boys do more work on the farm than formerly, work cheerfully and intelligently, they have taught and inspired their fathers to plant better seed, to rotate and vary crops, to keep better stock, to work to better advantage. Several farmers, who are in position to know, say that in this section all raisers of milk profit by the Babcock test, that all farmers use first-class seed and keep only profitable stock, and they attribute this largely to the schools. One farmer told me that the schools were worth tens of thousands of dollars a year to the farmers of the county.

In Page County there is scarcely one non-progressive school trustee, scarcely one who will not do whatever is necessary for the best good of children as to grounds and buildings.

And all this is primarily the achievement of Jessie Field, county superintendent for the last four years, a farm-raised girl, college educated, a woman who has been a city-school principal. With scholarship, with city privileges, she has never forgotten her love of the country farm on which she was born and where she passed her girlhood days. She is a county superintendent who appreciates that there is no higher mission than making the most of country boys and girls. What Jessie Field is doing, many other men and women are approximating, and what she has achieved, others may accomplish.

From a Letter

From Miss Field to the Editor of Farm and Fireside

. . . I know I am an enthusiast, yet I am very sure that there is no greater work before us to-day than that of placing the right kind—the *best kind*—of an education within the reach of every country boy and girl and that this education shall not be a cheap imitation of that offered in our cities. This work is the work of the American farmer. And I thoroughly believe that if only we can make the farmer see what can be done, he will gladly do his part in making his children's school all it should be.

The other day I ran across a farmer and learned he had moved to town. I said, "Mr. White, have you really sold that beautiful farm and moved to town?" I remembered how I had loved that farm home when a child and enjoyed its hospitality. "Yes," he answered, "I had to come to town to get the children through school." Many a farmer is doing the same thing—moving to town to educate his children. Many country boys and girls are leaving their country homes, too, to come to towns. And yet—we can have advantages for education in the country for our children, far in advance of anything that can be offered them in town.

The two accompanying pictures show just one phase of the matter—that of attractive housing. The rundown, dilapidated one costs the farmer more than the one which is neatly kept up. The modern building by good management costs just nine hundred dollars. The old gentleman in the picture has been director for twenty years and is called "The Watch-Dog of the Treasury," yet it was this man who insisted that when they built a school-house, it should be a good, modern one, with every convenience, knowing this to be the better investment for the district.

In our schools we try to use familiar farm illustrations of every principle we teach. We have our own "Farm Arithmetic" pamphlet, for our country teachers to use as supplementary matter, made up of problems such as the farm boy and girl need to use every day in real life—problems of reckoning farm crops, calculating specifications for farm-buildings, estimations for drainage, payment of farm labor and the like.

I send you a fair sample composition on the cocklebur, a weed troublesome on the farms of his neighborhood, written by a ten-year-old country boy. We believe we can use the things the children know about with much greater results in their language work, etc., than the far-fetched things they know nothing whatever about.

This year we had a corn-judging contest in our county schools in which over a hundred boys competed. We had an expert down from Ames, and the boys placed samples and gave oral reasons. In a pre-

The Country School as it Ought to Be
Oak Grove School, Page County, Iowa. A school that is as full of comfort as the best of homes

liminary contest, we selected the twenty best, and the three best at the final. These three made up our corn-judging team, who will have their expenses paid to go to a short course at our state agricultural college this winter.

It is an inspiration to have a paper of the influence and strength with the farmers which yours has interesting itself in this vital problem of the rural schools.

Castles in Spain

By John T. Bramhall

What school-teacher or stenographer, clerk or bookkeeper, does not dream of retiring some day to a little home in the country, where the soil shall supply a modest competence, and the buzz of the boss shall never be heard? The craze for the little farm home, if craze it be, is no new one. Pope was but a youth when he wrote his "Ode to Solitude," but he had more wisdom than many of his elders. Surely we all agree with him in this proposition:

Happy the man whose wish and care
A few paternal acres bound,
Content to breathe his native air
In his own ground.

Whose herds with milk, whose fields with bread,
Whose flocks supply him with attire;
Whose trees in summer yield him shade,
In winter fire.

But, unfortunately, all the acres are not paternal, and we are often tempted to take wild land instead, and do the pioneer act, for which we have not received the proper training. We are not all of us in the position of Mr. Micawber, who went into sheep, it will be remembered, with great success, after failing in coals, because Mr. Micawber had brains, but not capital, and sheep were of the character which seemed to thrive under such conditions. Intensive farming, of the sort to pay several hundreds of dollars per acre to the man or woman without any previous experience in spraying fruit-trees or caring for stock, requires not only brains, but a certain amount of capital, also.

The fact is, farming is not so easy as it looks. Nor is land so plenty as it seems from the advertisements in the Sunday papers. Our fathers used to sing:

"Uncle Sam is rich enough
To give us all a farm."

But that was a long time ago. There is a little land left, which Uncle Sam has bought of the Indians, and which he is offering in bargain lots to the one in two or three hundred who is fortunate enough to draw a number. And there are also some sandy wastes where a colony of Russian peasants might perhaps gain a living, and which, bought by speculators at a dollar an acre or less, can be made to yield a rich profit when sold for something like twenty-five dollars an acre. Do you see the point? A wise man has said that the way to get a living out of the land was by buying it cheap and selling it dear. But the school-teacher and the bookkeeper expect to buy cheap and sell dear, and things will not work that way with the five-acre or ten-acre ranch.

But it is very attractive. Who could resist a siren song like this: "What Seventeen Cents a Day Will Do if You Care to Buy a Florida Orange-Grove Home Which Will Net Five Thousand Dollars a Year if You Desire to Live Here." While you are waiting to go to your Orange-Grove Home perhaps you can find some accommodating native who will act as caretaker for a share of the five thousand dollars. For the lands are very valuable, being "Lands that can pay fifteen hundred dollars, but average about three hundred dollars per acre," yet, because the natives are all so busy raking in three hundred to fifteen hundred dollars per acre from their own lands, these are generously given away for twenty dollars an acre. A picture of the president of the company is offered as evidence of the fertility of the land and the high class of society. A list of millionaires is given for your consideration and you are told to get wise. Then you are asked:

"What are you going to leave to those who depend on you? Is not this a desirable investment for your child or wife or others who look to you for support? You run six chances to one of being destitute and dependent in your old age. Only ten acres here, bought now for seventeen cents a day, would make you as free from worry about your old age or that of your dependents as though you had a pension of several thousand dollars for life. Look at it in this light for a moment."

There are other Florida propositions, for there is plenty of sand and water on the peninsula to stock up propositions of this sort. And a great deal of it could be utilized if colonized by the right sort of people, which is neither you nor I, dear reader. Nor are the fountains of youth confined to Florida, nor was Ponce de Leon the only valiant knight who went on a goose chase and got plucked. There are Edens in the West as well as the East. "One dollar per Acre per Month Buys an Irrigated Fruit-Farm in Oregon," etc. If you do not care to go so far West, how does this strike you? "Three and a Half Cents Per Day Buys an Irrigated Fruit-Farm in Yellowstone Park Colony, Montana." The terms are generous: "Sixty dollars an acre at terms of one dollar per acre per month means that you have almost five years to pay for your land." I can beat that: One hundred and twenty dollars an acre at one dollar per month will give you ten years to pay for your land. "Oh, king," said the clumsy magi, "you shall see all thy children die!" Off with his head! The next man was more careful: "Oh, king," said he, "you shall outlive all thy race!" And he got the ribbon. I will say one thing for these Northwestern propositions, they do not offer a cut of the president of the company, and I think that is decidedly in their favor. It would take mighty good land to catch my seventeen or even three and a half cents if I had to take the picture of the president of the company along with it.

"But are these propositions all fakes?" asks the disappointed school-teacher or bookkeeper, who has the land hunger very bad. I would not go so far as to say that, but suppose we consider a horse trade. There are, without doubt, many good horses in the country, but what would you think of a concern which offers in the Sunday newspapers or anywhere else fine, thoroughbred horses, sound of wind and limb, and of pedigrees that boast records in the twenties or better, at seventeen cents or three and a half cents a day? Would you even stop to look at the horse's teeth? I don't think you would.

Farming, fruit-raising and all the specialties of the fine art of husbandry are not to be learned by a correspondence course with a shark land company. You may learn some useful things, but it will not be farming. Believe me, there is no royal road to agriculture. The nearest approach to such a road is through the agricultural college. I will not deprive the school-teacher and the bookkeeper of all hope, either, but will offer something better than the seventeen-cents-a-day proposition. Seek out some hill country in your own state, wherever that may be, or some lands reputed poor. Look it over carefully. See if there is not some one, some German farmer (I have great faith in the German farmers), who is managing to do something. Then consider if you could not make a success of your own peculiar hobby, fruit, or truck, or chickens, or what not, and then find out what kind of a deal you can make for a ten-acre patch. I have known men to win out in this way on the huckleberry hills of western Massachusetts; on the pine hills of Schenectady, New York, and on the pine barrens, so called, of Michigan. And you would have a far better chance, in my humble opinion, of getting health, happiness and a competence than in investing in any seventeen or three and a half cents a day proposition.

Cornless Swine

By Charles W. Peterson

The swine-growers of the corn belt are apt to think that they are in no danger from their brethren of the regions where corn either is not grown or cannot be. Are they correct in this? It seems to me that they may well consider this question well before making up their minds, and that the farmers of the cornless areas of the irrigated regions of the mountain states and territories, the dry farmers where corn is for any reason not a success and all the agriculturists of western Canada may profitably take up the matter of determining whether or not they can compete with the corn belt in hogs. And the corn-belt hog-raiser will find that in other things than corn he may find rations for swine which will make his operations more profitable.

The extensive wheat-fields of the Northwest and western Canada annually yield an increasing harvest, and the virgin-soil wheat farmers are exceedingly prosperous, but it is a question whether they have commenced to reach the limit of their possibilities.

Field-Peas, a Mainstay of Pork Production in the Cornless Belt—Grown Near Strathmore, Western Canada

No one can maintain that it pays to sell wheat direct at sixty-five cents per bushel or less, when experience demonstrates that, sold in the form of pork, eighty cents to one dollar per bushel can be realized. Investigation by Professor Henry shows that it takes from three hundred to five hundred pounds of corn to produce one hundred pounds of gain, or an average of four hundred and twenty pounds of wheat. The price of pork in southern Alberta has not been below four dollars and twenty-five cents per hundred during the past six years. Wheat converted into pork at four dollars and twenty-five cents per hundred would realize sixty cents per bushel; at five dollars per hundred, seventy-one cents per bushel; at six dollars per hundred, eighty-six cents per bushel, and at seven dollars per hundred, one dollar per bushel. Supplementing the wheat with alfalfa, rape or tare pasture in summer and roots in winter, the number of pounds of grain required to produce one hundred pounds of pork can be greatly reduced and the value per bushel realized correspondingly increased.

Experiments conducted at the Ohio Agricultural Station show wheat to be an excellent feed for economical pork production. In these investigations the daily gain per pig when fed wheat was one and thirty-nine hundredths pounds, while those fed corn only increased one and twenty-nine hundredths in weight. A mixture of the two grains has the same result as when fed wheat alone. A bushel of wheat produces thirteen and seven tenths pounds of pork, while a bushel of corn only produces twelve and three tenths pounds of pork. The hogs ate more wheat per day than corn, so that wheat was shown to be a more valuable feed than corn, even allowing the gain per bushel to be the same and not taking into consideration the much higher quality of wheat-fed pork.

Barley is of so much interest and importance in the production of pork that it demands more than passing notice. The results the Danish farmers have gained with barley and the success of similar experiments on this side of the water may be studied by our feeders with profit. Danish bacon, which figures so prominently in the English market, is produced mainly from barley and dairy by-products. At the Ontario Agricultural College, Professor Day has found barley so valuable in bacon production that it is now used as the standard feed there. Professor Shutt has found that the best bacon is produced by a ration of which barley constitutes at least one fourth.

Some authorities claim that field-peas may be even more profitably fed to hogs than to sheep. A bushel of peas will put on as much pork as one and one third bushels of corn. It is easier to raise fifty bushels of peas under irrigation in the right kind of soil and climate than forty bushels of corn in the "corn belt." The Colorado Agricultural College puts the average cost of feeding and irrigating an acre of peas at one dollar and a half to two dollars and a half. The harvesting is done by the hogs themselves. There is no cost of cultivation. Results have been recorded reaching as high as six hundred and fifty pounds of pork per acre from hogs grazed on peas. Pea-fed pork commands a premium at the packing-houses. Pea-fed bacon is the finest pork product obtainable.

A good many feeding experiments have been made, tending to show the superiority of pen feeding over the open-field method for quick results. But these were made by experts. Our observation has been that in the hands of the average farmer the results are often the reverse of that shown by the experimenters. Where land is cheap, and labor high and none too skilful, we do not hesitate to recommend the field method; principally because it permits the hog to take care of itself, and correct the blunders and escape the injury that may be caused by the neglect and irregularities of the man in charge.

The field method, however, necessitates a supply of succulent pasture. This, the alfalfa-fields and clover-pastures of the mountain states and of the illimitable acres of western Canada furnish abundant possibilities for. Clover is a great favorite for hog pasture, but alfalfa stands pasturing better and is superior as a feed. Ten to fifteen head of pigs, weighing from fifty to sixty pounds each in the spring, will pasture on an acre of alfalfa and make a gain of one hundred pounds each during the season, and be in fine condition for finishing with peas, barley or wheat in the fall. Winter rye makes an excellent forage crop from September 1st to snowfall, and oats, beardless barley and rape are good for the three summer months. The facts that large packing-houses exist at Winnipeg, Calgary and Edmonton, where hogs are slaughtered in considerable numbers; and that small establishments are springing up in such dry-farming and irrigated-land towns as Billings, Montana, seems to me proof that a cornless hog industry is already established, is profitable and must increase.

New Saws and Fresh Filings

Manure helps the land to endure.

A poor cook soon ruins a good stomach.

The proof of scientific farming is the crop.

What we eat and how we eat it are two questions of importance.

Rats, mice and other pests have an idea that your farm owes them a living.

Poverty soon overtakes a lazy man. After that they travel along together.

There seems to be more real enjoyment in getting rich than in being that way.

Heavy rains are not good for the manure—except when the manure is under the ground.

If horses think at all, they must wonder why this good-roads movement wasn't started long ago.

Sticks of wood too long for the kitchen-stove will go twice when cut in two, but think of the energy wasted in trying to make them fit the first time.

The farm is a little world to itself, in which every field is a continent, every pond an ocean, every building a city. And every farm has its north pole—that is, the highest point of achievement—yet to be discovered. Wm. J. Burtscher.

D. Ward King—Roadmaster for the Nation

By Forrest Crissey, Author of "The Country Boy," Etc.

This is the third of our studies of Benefactors of Agriculture. In the first, we presented the work of a scientist who taught the farmers. D. Ward King is a farmer who has taught the scientists. His split-log drag, "so cheap that a hobo can afford one," has revolutionized our notions of road-making. His life is not merely a record of practical accomplishment, but of unselfish public service. His work may not be the style that makes good meat for orations—but there is such a thing as practical patriotism, and D. Ward King's is that kind.—EDITOR.

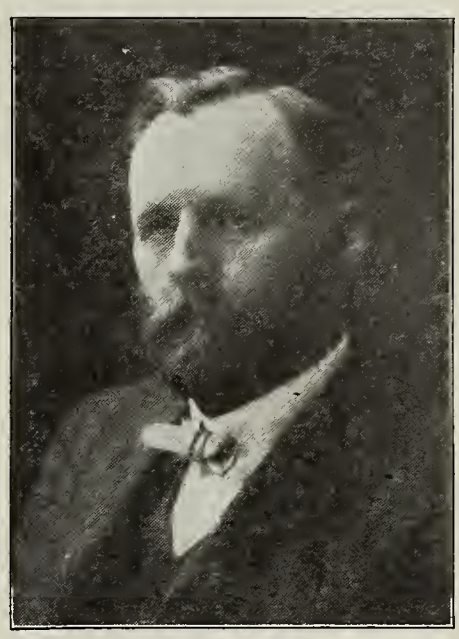
Did it ever occur to you that fame is about as commonly misplaced as a monkey-wrench on the premises of a shiftless farmer, that great reputations are often as outlandish misfits as the skins of new-born lambs?

It looks that way to me lots of times, and occasionally I get to feeling that there's a power of greatness stalking up and down the earth that is simply a coarse but plausible quality of unshrunk egotism. And one of the things which is surest to give me the feeling that the whole Hall of Fame is a monumental collection of misfits is to recall that a certain lanky, grizzled, loose-jointed man from Maitland, Missouri, isn't occupying as much space and red ink in the newspapers as Cook and Peary, isn't being banqueted by every association of commerce, booster club and commercial association in the country, that railroads are not rubbing elbows to see which shall be first to haul him about in a private car, that his portrait isn't hung on the walls of every school-room in the land and that a national holiday is not observed in his name. But the depressing fact remains that a million men know the names of Count Boni, Jeffries and Hans Wagner who have never suspected the existence of this unsung man from Missouri, who has really done something.

On the other hand, there's a whole heap of hard-headed farmers and their families, to say nothing of doctors, preachers, teachers and autoists, who are getting joyfully acquainted with the work that he is doing, and their number is bound to increase, like weeds on an untraveled roadway, until there will be precious few traveling the highways of this country to whom his name will not be as familiar as that of William Jennings Bryan or smiling "Bill" Taft.

Do I hear calls of "Name him! Name him!" But just let me pause to remark that his name is the only highfaluting thing about him. It sounds as if he wore spats, carried a walking-stick by the wrong end, had a summer home on Long Island, frequented the receptions of Mrs. Stuyvesant Fish and had a pedigree longer than the history of Manhattan. All of which is precisely what he isn't and what he doesn't do. He has the pedigree all right, but he has managed to scrimp along without the spats and the big cane.

So, know the worst: His name is D. Ward King and his lien upon a laurel wreath fresh from the hand of Fame is the fact that he has done more than any man, living or dead, to make possible good country roads at a cost far below that of any other known method. Folks who live on farms and in country towns and villages, and who know the cost in money and comfort of a mud quarantine, will not need to be told what this means to those who live next to the soil. But to those who seldom stray from city pavements or get out of ear-shot of a street-car gong, it may be hinted that this means a direct saving of millions of dollars every year to the rural population of this country and, in addition to that, it means to the women and children of the farms freedom from long periods of isolation, the assurance that mud will not be able to imprison them for months at a time, that a heavy rain will not exile them from their friends and from church, the school, the sociable, the lecture and all the privileges of social intercourse.



D. Ward King
The Man Who Devised the Split-Log Drag

Perhaps you are saying, "But I'm 'from Missouri' as well as Mr. King; the honors you are handing out to him would be tall credit to a United States senator with a fighting record, and you'll certainly have to show me." Right! Being from the commonwealth of the perpetual interrogation-point, Mr. King is always pleased to meet home folks and make good on home grounds. He likes the "show me" clause, and the past nine years of his life have been given almost exclusively to the showing process.

But, before getting under full headway on the subject of what this Missouri farmer has done for the country folks, let's get a look at the man himself; that may help to throw a sharper focus of light on his work—besides, it's too interesting a story to have its ending in the introduction.

King was born and raised—yes, since he is a six-footer, *raised* is the word!—in Springfield, Ohio, and played tag around the door-steps of Farm and Fireside plant. His father was a hardware merchant and his grandfather was one of the thrifty forebears of the state. It was said of the grandfather that he hit Ohio about the time the first papaw took root in the Buckeye soil. D. Ward was a "town boy" and true to type; he hardly knew whether milking a cow was a matter of push or pull, but he knew all about the fire barns, the police stations and other local industries of interest to a live boy. About the time his beard began to sprout, his father began to chase him with an education. True, he succeeded in running the boy up the front steps of a fresh-water college, but the future road-builder ducked out the back door before they could tag him with a sheepskin.

He had an undefined hankering for the soil in him and when pressed into close quarters by a college career he hit the road leading toward the sunset and didn't stop until he had landed near what is now Maitland, Missouri, twenty-five miles from a railroad station. Up to that time he had never washed his face out of doors or put a collar on a horse. But he was keen for the life of the soil and lapped it right up out of the saucer like a hungry kitten. It was the life for him! About two years later a railroad cut through his farm and located a town three miles from his house. He celebrated his good luck by getting married. But the roads over which he took his bride were the worst that could be puddled from rain and rich black prairie soil. Right then and there his interest in good roads was born. Having grown up in a city, he thought that a macadam road was the only road, and he began to fight for it. His neighbors gently intimated that they had no ambition to impoverish their farms for the sake of driving to town over a pulverized stone quarry and that he'd have to wait and fight a long time before he'd be able to saddle the expense of a country boulevard on them. When the first child came, the problem of the Demon Mud became more acute to the plucky and progressive young farmer. To see his wife shut in and exiled from all intercourse with her friends for four or five months of the year stirred the young man mightily, and he could look ahead far enough to see what limitations this quarantine of impassable roads would impose upon the education and development of his children as they grew older. Being of the temper to which obstacles and opposition are a spur, he straightway made up his mind to find a way out—to get a good road to town at a cheap cost if his fellow-townsmen would not stand for one at the regular rates. Then he began to study the road problem as he had studied the farming problem. He bought all the good-roads literature he could lay hands on, and began to read and dig. The longer he dug, the clearer became the unwelcome conclusion that the united wisdom of all the road experts held no hint of how a good road could be built on rich, softly-crumbling prairie soil without making a hole in the town tax fund as big as a young gravel-pit.

His plan to get a good road to town was apparently up to the hubs in a slough of despond and hopelessly mired. Did he lie down in the traces or reconcile himself to settling back into the rut which all his neighbors had been content to follow? Not King! It wasn't in him to settle or to flunk. He was not made of that kind of stuff. He said to himself:

"There must be a way to get a good road without filling the mud-holes with dollars, and I'm going to think it out! And when I get it and it solves my problem, it will do just as much for thousands of others who are in the same fix as for me and mine."

This was the spirit in which the "King split-log drag" was born. Bells in a thousand steeples have rung wildly and whole nations have gone mad with joy over births that mattered infinitely less to mankind than this. Not only did a rut-ridden world neglect to welcome King's infant prodigy with joy-bells and other acclaim, but a grinning row of Missourians perched themselves on the fence and prepared to have great sport over the antics of the "crazy dufunny." They spat and grinned and handed out their best brand of Missouri sarcasm, but farmer King was too much interested in the working of his invention to pay attention to the good-natured taunts of his neighbors.

"Seems to do the business all right," was the inventor's silent comment, "but the next rain will tell the story! Time enough to do any crowing then."

The judges on the fence couldn't provoke a word from him, beyond the statement that he called the "dufunny" a split-log drag and that it had cost him a trifle over two bits and about three hours' work.

But the odd part of the story is: How did King come to think of such a simple and primitive contraption as this tool by which to revolutionize the country roads of America. What were the mental processes by which he traveled from the determination to get something which would make bad roads good and do it at a "dirt-cheap cost?" Here's the answer, and I know it's right, for he told me himself:

"It isn't the water that falls on a road that hurts it, but the water that *stands on it*—that's what does the damage! That brought his problems down to this: What is the cheapest means, method or tool by which a road may be worked so that it will *shed the next rain?* And along with this came other questions: How can the road be treated so that the traffic will be distributed *all over the face of it?* In other words, how can temptation be removed from the rut-followers at both ends of the reins—the horses and their drivers—to establish hoof-tracks and wheel-tracks and thus cut the road to slices to hold water instead of helping to pack the entire surface into a convex line that will shed the rain like the roof of a prairie-schooner? Because mud or moist earth hardens into a sort of plaster that will shed water if its surface is sufficiently smooth, King had concluded that the thing to do was to smooth the surface of the road while moist and crumbly so that it would offer to the next rainfall a gently convex contour, hard enough to shed water, with no ruts or holes to act as troughs to hold the water.

Simple? Almost absurdly so! And yet King found that his crude "contraption" made of a split log did the smoothing-plane act as perfectly as if it had cost a thousand dollars.

The half a mile of road which he dragged from his own gate to his neighbor's gate, toward town, did shed the next rain. The downpour left it only moist and more workable. He quickly got out his drag again and dressed it over neatly. It had no ruts and no mud-holes, and wagons that had mired on other sections of the road found every foot of the dragged strip firm and passable. Those who had scoffed at the split-log "dufunny" stopped swearing at their teams, put up their whips and forgot that

This is a Nebraska road in Pawnee County; but almost every one of our readers can duplicate the picture nearer home. Every wheel deepens the ruts, and every rut holds water

Not macadamized—simply dragged. The ruts are smoothed out and a crown left in the center—this road sheds water. The positions of the three hats give emphasis to the curve

they were "from Missouri" when they struck the "King strip." And the fame of that little stretch of road spread abroad through the county and the state until it finally reached the ears of Hon. George B. Ellis, Secretary of the Missouri State Board of Agriculture, and a hustler who was out with a lantern looking for new road ideas! He straightway sent a man to inspect the "King strip" and report his findings to the annual meeting of the board in Chillicothe, in December of 1900. Also, he sent for King and asked him to talk before the meeting.

A Call and a Campaign

When King came into the hall where the board was in session, a man was speaking and he seated himself in the nearest chair to listen. His mouth opened in astonishment as he heard the speaker say that if the whole bunch of road supervisors in the state of Missouri could be turned over to D. Ward King and taught how to make split-log drags and use them, it would be worth a hundred thousand dollars annually in ready money to the commonwealth. This took a good deal of King's breath away, but he had enough left with which to tell the story of his invention and the practical results it had shown. He came to that meeting personally unknown to anybody there and "feeling like a cat in a strange garret;" he left it a public character with a public "call," a man with a real, live mission. On the way home he did a heap of solid thinking, for he had been urged by the board of agriculture to go out through the state preaching and teaching the gospel of "good roads without money." On the other hand, he could make more money and have an easier and pleasanter time by sticking tight to the farm and the family.

But again the clear vision of the great need came before his eyes: How had he felt about the mud quarantine himself? How had his wife felt about it? He multiplied their individual case and saw a great multitude, millions, of country dwellers suffering under the dominance of the Tyrant Mud. Then there were the schools, the churches, the lectures, the public and social gatherings that spell Life to all the members of the farm household! King was too keen, too thoughtful not to realize that barred from these things the children of the American farmer might just about as well be peasant children in some remote European principality, so far as their mental and social future was concerned.

Again, there was the money side of the question. He tried to figure out what it would mean to the commerce of this nation if the bad country roads could be made into good roads; he started with the government figures that, of the two million miles of country roads in the United States, only one hundred and fifty-three thousand miles were "improved;" but his calculations of this economic gain so quickly leaped into billions of dollars that he stopped—dizzy and dumbfounded.

But his vision brought him sharply to the point of decision; he could not bring himself, from considerations of private advantage and comfort, to withhold from the farmers of this nation the intellectual, the spiritual, the moral and the commercial gains that would follow in the wake of transforming half the unimproved roads of the country into good roads, open and passable twelve months of the year.

"Show Me" Evangelism

From that time until now D. Ward King has been going from county to county, from state to state, carrying the "gospel of good roads without money." Part of the time he has taken a split-log drag along with him and acted on the principle that all men were from Missouri when it came to the "show me" attitude. He traveled the country from Maine to Texas and has delivered fully eighteen hundred talks.

What has been the harvest of results to the cause of good roads? I put the question to him squarely a few weeks ago. He figured carefully for several minutes and then said, "I calculate not less than sixty-five thousand miles. Kansas, Nebraska, Illinois, Indiana, Ohio, Minnesota, Michigan have five thousand miles of dragged roads each—probably more, but put it conservatively. Why, one town in Missouri has eighty-three men dragging roads practically at one time; the local paper published their names. Then I've done work in Arkansas, the Dakotas, Texas, Tennessee, Pennsylvania, Connecticut, Maryland, Maine and Canada. This list is from memory. Very likely I've overlooked some states."

When King goes into a community to start the good work going, he falls right back to Methodist-revival methods and, after he has "warmed up" his hearers, he calls upon them to crowd right up around the anxious seat and put themselves on record. "How many of you men," he asks, "have faith enough to be willing to back it with works. How many will make a standing pledge to make a drag and drag the road from your gate to your neighbor's gate in the direction of town—or to drag a mile of road anywhere?"

King's theory is that the road proposition is overorganized, that what we need is *more work on the roads* and less on paper. At every meeting he tries to get men to pledge themselves that they will make a drag and do work with it, and this method gives him the name and address of every man who has promised to do work, so that he may be checked up on his pledge later. With a road-making machine so cheap that a hobo can afford one, the excuse of expense is eliminated and the main thing is to get the individual out on the road.

"A piece of dragged road," declares King, "will do its own talking. If I can get one man in any community to drag the road from his gate to his neighbor's gate, he doesn't need to worry about what the other fellow will do. He can just keep his mouth shut tight and the road will do all the urging needed. To a new convert, I always say, 'Don't pester the other fellows, just drag and the road will do the rest.'"

In drilling away at the dragged-road problem for nearly nine years, King has learned a heap of things he didn't know at the start. When he was last in my office, I said to him, "What is the greatest thing the King drag has turned up? The latest harvest of wisdom you have gleaned from the roadbeds of country highways. Cut loose and talk it straight from the shoulder!"

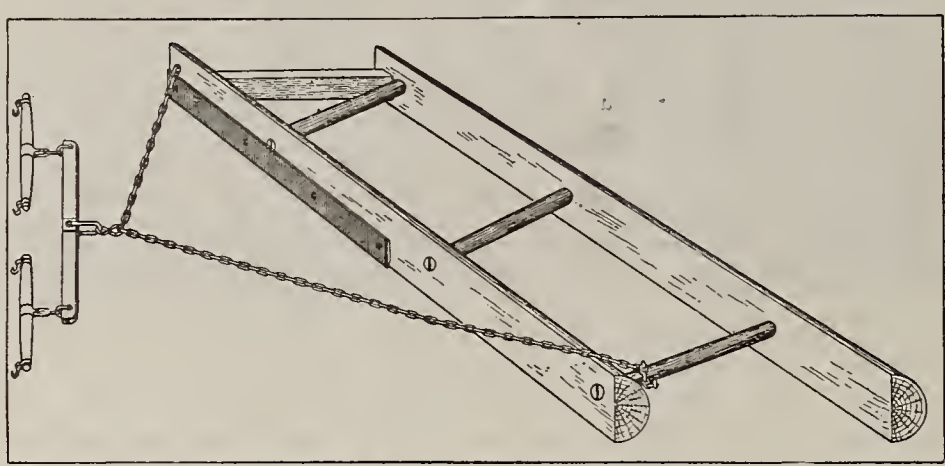
Home-Made Boulevards

"Making the farmers take a pride in their roads," was the quick answer. "That's the biggest thing the drag has done. Before it came, everybody was willing to grant, without argument, that the poorest thing in our civilization was the average country road. And everybody got even with everybody else by blaming it on the road boss. Now a piece of road that a farmer has dragged is *his road*, and instead of taking the Sunday visitor out to see the blooded bull calf or the prize colt, he shows him the dragged road. That very thing has actually happened. After the stretch of road is dragged, the farmer sees that it would show up better if the weeds were cut, so he mows both sides of the roadway. Then the defects in the fence show up clearer than ever, and he fixes the fence. And after he has gone that far, he seldom stops short of fixing up the barns and outbuildings and painting the house.

"Another very important development: Most inventions merely furnish the basis for improvements; they are perfected by others and their usefulness multiplied. Only a few are so simple and so practical that improvements do not improve them. I didn't quite expect that the split-log drag belonged to the improvement-proof class, but I've had experiences which seem to prove that it does. Here is one: About a year ago I attended a road parliament at Corning, Iowa. Some two years before, I had been there and stirred things up. This time I was to help award prizes, offered by merchants, for the best pieces of dragged road. Frankly, I was disappointed at the exhibits over which we first drove; they seemed rough and gouged. Suddenly we came upon a drag built by a blacksmith—an 'improved' drag. Later we struck a smooth piece of roadway. I told the other judges it was certainly entitled to the first prize and they agreed to that. Still later we came to another smooth, even piece. That took the second prize—without dissent. Then the local men told me that all the prize-taking pieces were dragged with an old, original, King split-log drag and the rough pieces were the work of the blacksmith's 'gouger,' as they called it. About the most effective tool in the world is an ax—just an edged chunk of iron with a stick in it. It has been the means of reducing the wilderness to the abode of civilization. Hundreds of men have attempted to improve it, and every time produced a special tool and destroyed its usefulness for general purposes. So with 'improvements' on the old split-log drag, they become special tools suited to special conditions only. It's safest to stick by the original model.

"Then I've learned that the split-log drag has a work to do on macadam and other hard roads as on the dirt and gravel roads of the middle West. I found farmers down in Maryland, right in sight of the capitol building, complaining about bad roads. The drag was used on their shell roads with just as good effect as I ever had at home. This astonished me and it will surprise many to know that the spread of dragged roads throughout New England has become almost general.

"In a word, the drag gives the right contour to a hard road as well as to a soft one. Down in Standish, Maine, a man by the name of Sanborn tried the drag on one of the worst stretches of road in this county. The results put Sanborn in such demand as a road-maker that he did little else. The split-log drag has its work in the rocky, stumpy East as well as in the prairie and gumbo soil of the Mississippi Valley. That is amply proven, and it is important, for it was hardly expected at the start. Give me a plow and a good split-log drag and I can do anything in the way of road-making that can be done with an expensive grader. I'm not saying this to knock road machinery, but because there are thousands of men who sit through a mud blockade, months out of every year, waiting for the time when the township can afford to get machinery and fix the roads. If they'll take a day off, go into the back yard, knock together a split-log drag and get out and drag, they will have the semi-annual mud blockade on the run while they're waiting for the machinery. This is happening all over the country. Mr. Pierce, at Helena, Arkansas, dragged a piece of 'buckshot' road leading to his cotton-gin. That road was accounted absolutely impassable certain months of the year. The first year of dragging it was never so bad that a load of ten bales of cotton could not be hauled over it, and the second year they could haul twelve bales. Formerly the winter limit was two or three bales. And never before had there been so little money spent on the road. Go back to the theory of the drag a moment. The drag doesn't put enough dirt in the middle to drive traffic to one side; it doesn't force tracking and ruts, but distributes traffic over its whole surface, which results in packing and solidifying the road all over. Smoothing the road leads to packing the surface, and the longer it is kept smooth, the harder it packs. Men have asked me why not use a road-roller. I answer: Because it costs money and doesn't move any traffic. If you can get the one-and-one-fourth-inch tires of farm-wagons loaded with corn or produce to do your rolling, instead of acting as road slicers, as they do under the old method of road treatment, what's the use of buying a roller and hiring somebody to run it?"



Perspective View of King Drag—U. S. Model

Roads and Railroads

Those who are fond of figures may get a line on the commercial significance of the split-log drag from an incident. Early in his work Mr. King traveled along the line of the Chicago and Alton road in Missouri, and at a certain town held a rousing dragged-road revival. Ten months later, Mr. Curtis Hall, State Engineer, was standing in front of a farmhouse which was sixteen miles from the town on the Chicago and Alton where the King meeting had been held, and only twelve miles from another town equally large and important. The farmer was driving out of his gate with a load of fat hogs, and Mr. Hall was astonished to see him turn toward the more distant town.

"Why are you going off that way?" called the state engineer.

"Oh, it's only two or three miles before I'll reach a good dragged road this way."

That question, with its answer, is good for a good hour's hearing any day in the office of any railroad president in the country. It isn't too trifling for the Chicago Association of Commerce to cogitate upon!

And what has King himself got out of all this? A little money from the railroads for stirring up road improvement along their lines, a little money from the agricultural boards of various states—altogether less than he could have got if he had devoted his attention strictly to his large farm. And he has received the wages of a good stenographer or of a country preacher in a town of four thousand inhabitants. But he's had chances? Yes! The Chautauqua people tried to get him as a steady attraction. He told them:

"No. I never yet did anything merely *for the money*. There was always something else in it that counted for quite as much to me as the money—and more. Besides, just filling dates and jumping from pillar to post without waiting to get acquainted with the people and seeing that they're started out right isn't what I'm after. I've got to stay in a place until I'm satisfied that it's ready to leave, and that roads will be dragged there and dragged right. If I can give to this good country of ours *good roads without money* and *good roads right now*, that'll be all I'll ask."

"Why, man," I once said to him, "did it never occur to you that what you've done for the farmers of your own state alone would put you in line for the governorship or something better if you wanted to go out after it?"

He stroked his close-cropped beard—of the U. S. Grant pattern—and finally answered, "That might be true if I had a bent in that direction. But I haven't. I couldn't get along in politics for a minute. I've got to speak my mind, fair and square—couldn't live with the cork of policy in my mouth—just couldn't stand it!" And he spoke the truth. He's built just that way!

When the teacher in the little red school-house wants to hold up an American as a shining example of those who have done something for their country simply because it needed to be done, she can do worse than to tell about D. Ward King and his split-log drag. He's a sure, straight-grained public benefactor without anything to sell or any office hunger in the tail of his eye. And farmer folks can afford to say, "He's our kind!"

Making a Split-Log Drag

Mr. King's Personal Directions Dictated to Mr. Crissey for Use in Connection With This Article

The drag should be made of light wood. It is easy to build a good, stiff drag strong enough to stall a good team of horses and yet have it so light that an able-bodied man can easily lift it off the ground. For ordinary teams (horses of twelve hundred pounds weight) the slabs should never be over seven feet long. The logs or planks may be from eight to twelve inches across. If a man has a heavy team (horses of fourteen to eighteen hundred pounds), he may use a drag eight or nine feet long.

Don't be so particular about the character of the stuff you use that you fail to build because you haven't the desired kind of material at hand. Any kind of log put together in the shape of a King drag will work miracles on earth or gravel roads. A red-cedar log is perhaps the best. It should be carefully split, and the largest and most solid slab selected to be used in front. Have the heavy ends placed to travel in the ditch, and eighteen inches from the end bore a two-inch auger-hole in the center of the face of the slab. Then go to the other end of the slab and, if the wood is solid, bore a hole three or four inches from that end in the center of the slab's face. Now stretch a string from center to center of these two holes and half-way between them bore a third hole.

Bring up the other slab and place it so that the first hole bored will be opposite a point about four inches from its right-hand or ditch end, then bore the three holes. In boring all of these holes, be careful to have the auger perpendicular, or at right angles to the face of the slab, and, of course, have each stake parallel with the others. In making stakes, shave them and don't make any shoulder. This gives them elasticity. There is a trick about putting in the brace. Bring the slabs together on the stakes until the slabs are about thirty inches apart. Then wedge the stakes into the front slab. Next mark the point on the stakes to which the rear slab comes and drive it back an inch or so. Then fit in the brace to the ditch end of the drag as shown in cut, fitting it in the mark. Drive the slab snugly into place against the brace then and wedge securely.

By performing the operation in this manner, it is not difficult to get the brace so firmly into position so that it will never get away. For earth roads use

[CONCLUDED ON PAGE 28]

Keeping Books With the Soil

Some Figures for Fertilizer-Users

JUDGING from the amount sold, the most popular brand of fertilizer in this (West Virginia) locality is an acid phosphate and potash showing an analysis on the official tag of eight per cent available phosphoric acid and five per cent potash. This gives 160 pounds of available phosphoric acid and 100 pounds of potash per ton, or 260 pounds of plant-food per ton.

Now, our distance from the leading fertilizer markets is such that freight is an item to be considered. Then many farmers who use fertilizers have long distances to haul their fertilizers from the station to their farms, and of course it is economy to have the fertilizer in as condensed form as possible.

The 16 per cent acid phosphate is the highest grade that is sold; 1,000 pounds of it would furnish the 160 pounds of phosphoric acid. Also, 200 pounds of sulphate of potash would furnish the 100 pounds of potash. This makes the same 260 pounds of plant-food that is found in one ton of the popular acid phosphate and potash fertilizer, to which I referred above, and when mixed it is in the same ratio as is found in the ready-mixed goods. But when we mix 1,000 pounds of acid phosphate and 200 pounds of sulphate of potash, we have only 1,200 pounds of fertilizer; and some are ready to inquire what is the 800 pounds which goes to make a ton of the ready-mixed goods. It is simply filler used to make out the ton.

A close examination will show a substance mixed in that is neither finely-ground phosphate rock nor potash salts. Sometimes it is low-grade fertilizing matter of practically no value. In this instance it appears to be sand. Whatever it is, it is worthless as a plant-food, and the farmers are paying freight on 800 pounds of worthless matter in every ton of this goods they buy.

Not only this, but they are hauling it on wagons, many of them, as far as fifteen miles. The manufacturers are not wholly to blame for this, as they are simply catering to the demand for a cheap fertilizer. The dealers would sell the acid phosphate and the potash separately and allow their patrons to do their own mixing if they desired to buy it that way; but though the farmers know they need the potash, they cannot bear the idea of paying $50 a ton for potash salts when they can get a fertilizer "containing" potash for $20 to $22 a ton.

Mixing Fertilizer

We believe this is because they have never really got down to the figures of the matter. Any one who has studied the subject can calculate a fair profit to the farmer who buys the goods separately and mixes them. The extra freight charge on small quantities is of course a point against home mixing; but the main difficulty is that the average farmer is not well posted on the composition of fertilizers, and he consequently prefers to pay a higher price for the ready-mixed goods than to trust himself to mix his own fertilizers. The manufacturers and fertilizer agents both take advantage of this and charge a good sum for this superior knowledge and their work. Any mixed fertilizer shows a good profit over the price of ingredients for mixing them.

Let us reduce this fertilizer question to a basis of cash comparisons. The popular eight-five ready-mixed goods I have already referred to gives the farmer 160 pounds of available phosphoric acid and 100 pounds of potash to the ton; they cost here $21 per ton. Suppose the farmer had mixed a similar fertilizer himself, using high-grade acid phosphate and sulphate of potash. Acid-phosphate goods on this market of an ordinarily good grade contain fourteen per cent available phosphoric acid; they cost $18 per ton. The sulphate of potash contains (about) half its weight of actual potash; it costs here not over $60 a ton. From 1,200 pounds of the acid phosphate, which would cost us $10.80, we would get 168 pounds of available phosphoric acid—8 pounds more than is given us by the ready-mixed fertilizer. From 200 pounds of the sulphate of potash, which would cost us $6, we would get 100 pounds of actual potash, the same as in the ready-mixed goods. If we mixed these materials at home we would get a fertilizer costing us $16.80 which would be a little better than the ready-mixed article that is offered for our purchase at $21.

Note this further point: Our home-mixed article gives the same plant-food in 1,400 pounds as the prepared article gives in a ton. That means 600 pounds less on which to pay freight and to haul from the station. The 600 pounds of filler can be secured on the farm if it is desired to make up a ton of the same bulk; and we can choose the kind of filler best suited to the implement—grain-drill or the like—that we are going to use to drop the fertilizer.

Any farmer with a little experience can mix his own fertilizer at a cost of not over $2 per ton, and make good wages. He can mix a fertilizer better suited to his soil than the manufacturer can, since he is acquainted with his soil and its requirements while the manufacturer just makes general mixtures which may or may not suit the particular farm to which it is applied.

A last point in favor of home mixing is that it leads the farmer to a closer study of the subject of fertilizers—a study that is worth money. A. J. LEGG.

An Exercise in Farm Arithmetic

IT IS easy enough for the maker of common carriage bolts to tell to the thousandth part of a penny what one hundred of a certain size cost to make. In fact, he can, if he wishes, figure what each individual bolt costs in the way of raw material, labor and depreciation of equipment.

Not so with the farmer. As Mr. Grundy put it, in the October 10th FARM AND FIRESIDE: "The seasons control the cost of the farmer's products." There are many factors beyond calculation beforehand. The farmer can, however, foot up with a good deal of accuracy the net profits of his crops after they are finally sold or fed off and he can look back over the producing season in retrospect.

What factors ought he to consider in this footing up? In that same October issue Mr. Rolison figures the cost of producing a fifty-five-bushel crop of corn and a fifteen-and-three-fourths-bushel crop of wheat; he takes into account the labor of men and team in the whole course of production and harvesting, cost of twine and (for the wheat) use of binder, expense of threshing and cost of seed. On that basis, the cost of producing fifty-five bushels of corn, he says, is for his section (Ohio) $13.03; total value $32.80, net profit $19.77. But there is an item of cost Mr. Rolison has failed to account for, nor is he without company in failing to figure on this very important, yes, very vital, cost—namely, the cash value of the plant-food removed from the soil by this corn crop. According to Illinois bulletin No. 123, by Prof. C. G. Hopkins and J. H. Pettit (Page 189), a hundred-bushel crop of corn will remove nitrogen, 148 pounds; phosphorus, 23 pounds; potassium, 71 pounds. These are approximate maximum amounts.

Reckon these plant-foods at the prices that most of us pay in this region—nitrogen, 15 cents per pound; phosphorus, 12 cents per pound; potassium, 6 cents per pound. Make the calculation of the total value of the plant-foods as removed in the weights stated above, and we have the cost to produce one hundred bushels: $29.22. Fifty-five bushels cost $16.07. Add this to the cost given by Mr. Rolinson, $13.03, and you have $29.10. Take this net cost from the value of the crop, $32.80, and you have the staggering amount of $3.70.

The values I have used for plant-foods, per pound, may not hold for every section, but even at the lowest rates, they produce a cost factor of an importance not to be overlooked.

Some of my good FARM AND FIRESIDE friends may say all this is getting the thing down too fine. That may be; but hear me. The time will come—in many sections it has come—when we must of necessity take into account this vital question of "the unaccounted cost." The American agriculturist has farmed out the available plant-food in our soils as fast as the seasons would permit, and when the average yield was no longer profitable, has moved on to clear the forests without caution, rip up the surface of this new soil and visit the same affliction upon it, and move on.

Result: No more virgin forests and soil to move onto. The agricultural papers in every section are taking up the abandoned-farm problem. Nor is my own fair, sunny section of Tennessee exempt, for the worn-out fields and eroded clay banks all tell the sorrowful story of past opulence and present exhaustion. O. P. R. FOX.

Selling Fertility

I SEE by Iowa correspondence to an Eastern paper that the high price of both land and grain in Iowa are driving the farmers from live stock to grain farming. I am sorry to say that what is written is in many cases too true. No one realizes more than I do in my feeding operations that the day of shoveling grain into feed-boxes and keeping them full in front of steers is past. Feeding now is fast becoming a business, not a speculation. How, you may ask, can it be anything but a speculation?

A few years ago, the feeder using cheap corn and cheap roughness figured his profits in the direct gain—that is, the difference between his buying and selling price. In other words, he speculated on the advance. The feeder of to-day and of the future is the man who understands what a balanced ration means—who figures out how to produce beef on a cheaper basis and who, above all things, understands that in feeding cattle he is simply marketing his crops in the only way that will keep up the fertility of his farm. For what does it matter to a farmer how much corn sells for if his land is so corned that it produces less each year and decreases in value? It is absurd to say that land is too high-priced to feed live stock when old-country farmers are to-day feeding cattle and sheep on land which they rent for fifteen dollars an acre and producing beef that is sold on the open market in competition with American beef.

Old feeders here laugh at the idea of a man feeding steers now simply for the manure, and yet if I can get market price for my grain and alfalfa and produce more each year, it is no small thing. On my farm there is a forty fenced by itself—high, rolling upland which used to produce from thirty to thirty-five bushels of corn to the acre. This land was seeded down to clover, one crop of hay cut, second crop covered with manure and plowed under. The corn crop next year was husked by three men and all weighed. I had the pleasure of paying these men for husking eighty-two bushels to the acre. This is the indirect profit from live-stock feeding and the only one to figure on.

Last year we had grain higher than hogs, so farmers throughout the state sacrificed hogs and sold the grain. What followed? Why, hogs now locally are at eight cents and corn forty-five cents; and as a two-hundred-pound hog running on alfalfa can be raised for seven dollars on fifty-cent corn, you can figure what the shift lost them.

The whole state *was* grain crazy. I emphasize "was"—it will be hogs next year.

Personally, I have just one idea, one plan and one aim on my farm and that is to make it produce more each year and still increase in fertility, and that can be done in only one way, by raising hogs, growing clovers and feeding everything raised to live stock.

W. S. A. SMITH.

Where Conservation Would Pay

NOT until we landed in the Mississippi Delta country last winter did we know what waste of timber really meant.

Old settlers tell us how the great forests were wasted in the North; this very thing is going on to-day in the swamps of Mississippi. Possibly not as fine a grade of timber is being wasted as here in the early days, nevertheless the waste quickly appeals to a man from Indiana. The main money there is in cotton, and the land is being cleared for that, regardless of its future value under timber.

It does a "Hoosier timber-lover" good to look at the mighty trees that grow in that section, great cypresses a hundred and fifty feet tall, usually sixty to ninety feet to the first limb, and often six feet in diameter. Gum and oak trees grow everywhere—some species of oak we do not see here at all. Great fallen giants lie intertangled with cane—regular cane fishing-poles, acres of them.

We see a great many sawmills, but timber is plentiful and cheap, and only the best and the easiest to get at is being milled. Memphis, Tennessee, being near-by, is one of the greatest lumber markets for the region.

OMER R. ABRAHAM.

Pass It Along

IF YOU have a way of doing anything or making anything, which you think better or easier than the common way, why not write FARM AND FIRESIDE about it? We pay for good letters.

"Hoss" Trading Tricks

Did you ever find a lemon in a horse's nose? How and why did it get there?

What was the meaning of the ears being tied together with a fine silken thread?

Perhaps you are half persuaded to buy a horse because you like his "ginger"? Are you sure it is health and high spirits, or *is* it ginger—commercial ginger?

Are you sure you could tell the age of a horse by its teeth? Or would your experience be like that other man's, who paid $3500 for a 17-year-old horse, thinking he was buying a 7-year-old? The horse had been Bishoped.

Horse buying and trading offers hundreds of opportunities and temptations to use trickery and sharp practice. There is only one way to meet it.

Horse Secrets will Protect You

and save you from being cheated when buying, selling or trading. It exposes and makes you acquainted with the tricks, many secret drug preparations and handling methods of gyps and unscrupulous dealers. Many of the secrets of this book are now made public for the first time. No such collection of Horse Trading, Horse Buying, Horse Training and Horse Feeding information has ever before been published. It is impossible even in this large space to give a complete list of the secrets in this sensational and instructive book. Some of the topics of greatest importance are:—

Secrets About Horse Trading and Selling

The lemon trick explained, the horsehair trick, the fresh butter trick, flaxseed trick, etc.

Secret of shutting a "heaver."
Secret of plugging a "roarer."
Secret of making a horse appear vicious.
Secret of making a horse appear unsound.
Secret of stopping a "switcher."
Secret of hiding a spavin.
Secrets about Horse Feeding and Raising.
Secrets about Horse Training and Handling.

Turpentine, gasoline and ginger tricks exposed, and many others.

"Horse Secrets" has been prepared by Dr. A. S. Alexander, the famous veterinarian, who has had upwards of 25 years' experience in Horse Breeding and Veterinary Science. He is the author of the first stallion service regulation and inspection regulation adopted and enforced in America. There is no more competent authority on horses anywhere.

How to Secure "Horse Secrets"

"Horse Secrets" is not sold separately. It may be obtained only in connection with the following offer:

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Farm Journal is the paper taken by nearly every busy farmer, and the man that wants to know *for sure* about agriculture. They value it so highly that it is kept year after year and is continually re-read and referred to. It is a departmental paper with a convenient arrangement for the reader to find what he wants, and it *is* what he wants when he finds it.

The Farm, the Home, the Cow and Dairy, Bees, Poultry, Fruit and Garden occupy their proportionate share in every issue. Then there are the less technical and material pages devoted to matters of the home—fashions, housekeeping, recipes and bright, fresh reading for the younger members of the family.

Farm Journal is a paper that you don't have to "blue pencil" before handing it over to the children. The advertising columns receive the most careful scrutiny of our editorial department and the bars are up all the time against medical, deceptive or suggestive advertising of any kind.

We believe in the goodness of the good things of this earth, and through Farm Journal we tell our readers about them.

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Farm Notes

The Easy-Running Saw

In setting a cross-cut saw, it has been my custom to use an iron wedge to govern the slant of the large teeth. First I make the two straight sides level, then bevel one corner or edge of a straight side at the head end until it is of proper pitch for the set of a tooth. The blade of the saw is laid flat upon the side of the wedge, an assistant holding it, and each tooth to be set on one side is brought over the beveled surface, and with a hammer bent down to fit the iron.

The left hand is placed upon the blade at the back to hold it firmly upon the wedge, the tooth brought so that the point just reaches the wedge-head surface, and then the blow struck. Pass over both sides, keeping one position all of the time. When one side is done, change ends with the saw and go through exactly as before. By continued use of the wedge one can become very efficient in handling it.

There are better foundations upon which to set a cross-cut saw, perhaps, when one is at home, but the advantage of using the wedge is in being able to set the saw in the forest or field, in case it has been pinched by the settling of a large log, which is not unfrequently the case, as all timber workmen know. By placing the wedge on the surface of a large stump, one has a good solid foundation to work on, and in this way many trips to the work-shop or to the house will be saved.

When sawing hard wood it is very important to have the wedge handy, for the saw is likely to need setting some every little while, and a well-set saw saves much labor.

To File a Cross-Cut Saw

Care should be taken not to file the point of any one tooth more than those on either side of it, as a short tooth, whether it be dull or sharp, may as well be entirely removed, so far as cutting is concerned, as to remain. Do not file the first side quite up to the point; first turn and file the other side, then turn back and finish the first side, turn again and finish the second side. But if the saw is not very dull, a little less care in filing may be sufficient. After the saw is well filed, round off the last tooth at the point; as this will prevent this tooth catching in the kerf as the hand is drawn clear back and at the instant of starting it forward for the next stroke. It also lessens the danger of bending or breaking the saw. Did you ever break a saw in just this way? I have.

It is also a good plan to have your file along when going to the woods for a full day's sawing, as the tool by constant use is likely to become dulled before night as well as any other edged tool. Also, it is sometimes necessary to run the saw into the earth to get through a bedded log, and in this way the saw is badly dulled by contact with gravel or stones. To file the saw away from the shop, saw down nearly the width of the narrowest part of the blade into the edge of a stump, invert the saw, set it into the kerf, and fix it there with a thin wedge. Sharpen up both ends, then cut the kerf deeper and sharpen the belly or middle of the saw. There are several makes of handles for use on the cross-cut saw, but I care little about the make of handle, so long as it is strong and smooth and well fastened.

Cross-Cut-Saw Guide

It may seem out of place to some who are skilful in handling the saw to give a plan for a cross-cut-saw guide. However, they are quite handy at times when a large log is being sawed and a perfectly square end is desired. Really, there are but few who can run a saw truly down through a log even of small size if guided only by the eye. In sawing very large logs there is always a disadvantage in getting convex and concave ends, when pinching takes place. To obviate this, make a guide to work by. Get the hoop of a hogshead if the tree to be cut up is large, or a barrel-hoop if of medium size. After scarifying the log, part the ends of the hoop and put it over the log, fastening it in place by a few nails. Then the saw can easily be run down by the edge of this, and the log end be made true.

R. B. Rushing.

Rye as a Source of Humus

Within the last few years a manifold use for rye has been discovered. Formerly it was to a great extent used as a catch crop sown late in the fall or early winter and harvested the next season for what grain, by indifferent methods of culture, it might produce; to-day it plays a more important part in up-to-date soil management, as a grain, forage and cover crop, than perhaps any one other common grain. Eminent authorities have time and again pointed the fallacy of leaving ground bare during the winter months to leach, wash and otherwise deteriorate in fertility by the escape of soil elements, ammonia, and so on, when lacking a protecting blanket of some grain or grass-roots to bind the soil particles and prevent excessive freezing and heaving. Rye has after a most thorough trial been found an ideal winter cover crop and soil-enricher, especially for sandy regions.

It may be sown early or late in the season; it is especially valuable when pastures are short when sown quite early in September, soon forming a wonderful amount of green forage. From three pecks to one bushel is sufficient seed ordinarily for an acre, and with us in Michigan is best sown broadcast and harrowed thoroughly in, as in sand or loose soils the drill is apt to bury it too deep.

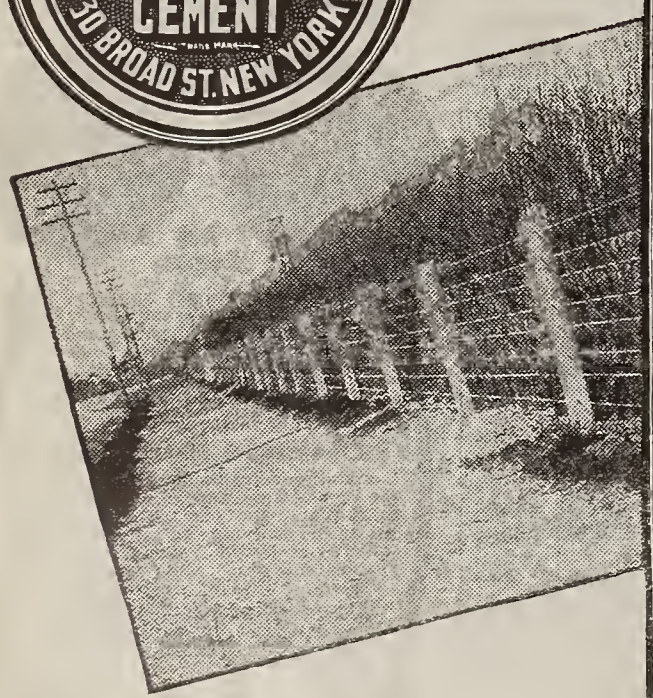
This amount of seed an acre is enough for a future cover crop or for pasture purposes, but for grain about the same amount should be sown as of wheat. Thousands of acres of otherwise barren stretches of light sand and jack-pine plain are being reclaimed in the northern section of this state by the sowing of rye and plowing down the following season. This is again repeated and the following spring the ground is seeded to common red clover harrowed lightly in; this system rarely results in the failure of a catch. The clover grows rank, producing nice hay, and the sod or roots endure the winter freezing remarkably, for such soils seldom heave to any appreciable extent.

Lands that formerly, in some instances, drifted with the winds and were not worth the nominal taxes levied on them are to-day luxuriant with green pastures; large sheep and stock ranches well fenced with woven wire and dotted with modern farm-buildings have displaced the desolate stretches of barren sands and pine-stumps and the happy proprietors are well off on these northern Michigan lands. This has been brought about principally through the intelligent handling of the rye and clover rotation.

The rye attains a good growth on the lightest of soils, though it is partial to wet, soggy land. It is a boon to the farmer on light, thin soils, for if handled properly it will, with clover in conjunction, make his ground over for him.

G. A. Randall.

NONE JUST AS GOOD



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Farm Notes

Make Your Own Climate

Along in October the son of an old friend wrote, asking me to come and see him if I could spare the time. I decided to go, to see what sort of a farm he had and how he was getting along in the world. His father had sold him the farm several years ago, and it was then a piece of bare land. He has erected a neat little house and barn with other outbuildings, is growing good crops and seems to be quite prosperous.

It was an ugly, chilly day, with a strong northwest wind blowing, when I reached his village, and we went out to his farm at a lively rate. When we drove into his yard, I noticed a washing on the line, lazily swinging about, and the fallen leaves lay quietly on the ground, while the temperature seemed to have instantly risen several degrees. The young man poked his thumb toward a thick belt of young maple-trees to the west and north of the yards and said, "That's the best thing on the place. That howling wind goes clear over us without stirring a leaf. When I moved on this place ten years ago, it seemed like we would be swept off the earth when a wind like this was blowing. It would blow the washing off the line and scatter every loose thing all over the place. One of the first things I did was to plant that shelter belt, and it was the best job I ever did. I was not able to buy trees, much as I would have liked to, because I was short of dimes, so I went to a neighbor who has several large maple-trees and gathered about half a bushel of seed. I prepared the land same as for corn, opened shallow furrows five feet apart and drilled the seed in them. I covered it lightly with a hoe, then harrowed the patch smooth. The plants popped up in a hurry, and as soon as they were large enough I cultivated them like corn. I cultivated once the following spring and then they were too tall to run over. I afterward ran through the rows twice with a single cultivator, and harrowed the ground smooth with half a harrow, and that was all the work done to them."

The trees stood quite thickly in the rows and had grown up tall and slender, and they made a perfect wind-break. His wife said she would not sell it for a thousand dollars. Said she, "You have no idea what a time I used to have when those hard western winds came. I feared to put any of my crocks, jars, pails or anything else on the bench out there. I had several things smashed by being blown off. Then I had John put some netting around it, and we thought that was a great scheme until one night a storm came up from the west and blew the bench over, crockery and all. Since our grove has grown up, we have scarcely noticed a west wind, and the others rarely amount to much."

I asked John if he thought the grove had been of much benefit to his stock. "Benefit!" he exclaimed. "Why, my yards are a paradise compared with what they were when the wind had full sweep at them. You don't see my cows standing humped up against the fence when I let them out in winter, nor my hogs everlastingly staying in their sheds. They go out and jump about like lambs. I fill their troughs with water and they go out to drink as willingly as to pasture in summer. The stables are many degrees warmer, and I save a good deal of feed that used to go to keeping the stock warm. I have often seen the stock go through the shelter belt on a cold, blustery day, and the minute the wind struck them they would whirl about and come back with a rush. Those who have no shelter belt simply have no idea what a grand, good thing they are. A man cannot put a greater improvement on his farm."

Those who love beautiful things would have been delighted with that young grove that October day. It was a great bouquet of gold and green. But the practical man would have seen in it a value of hundreds of dollars. It is only when a good shelter belt is grown that one can appreciate its worth. Those who have none should get behind some of those growing on prairie farms in Iowa and Minnesota some cold, blustery day in winter. One man in Iowa writes me as follows: "Fourteen years ago, when I did not care for wind nor weather, I read an article of yours about planting wind-breaks, which I then thought was a little far-fetched, and I had a great notion to write you to that effect. But my wife, who came from a farm in Indiana where the home and buildings were sheltered from the north winds by a natural grove, read the article and was simply carried away with it. She said if ever a truth was told, it was in that article. This set me to thinking. On my way to the county seat a few days afterward I stopped at the home of a farmer who had a good shelter belt on the west and north of his buildings, and asked him about it. He said he would not have it removed for a thousand dollars. He told me if I had none, to get one planted as soon as I could. He said it would be worth more than money, and I would say so myself before many years. On reaching home, I ordered from a reliable nurseryman enough soft-maple and white-ash seed to make a good shelter belt. The ash-seed was sent me that fall, and the maple-seed about the first of the following June, right after it was gathered. I drilled both lots in shallow furrows six feet apart, the ash as soon as I could work the soil nicely, and the maple as soon as it arrived. The rows were well cultivated until the plants were six to eight feet high. Since it has grown up, I pat myself on the back every windy day for planting it. And I just want to say that the man who plants one while he is young and strong will, when he begins to get full of years and his blood runs slower, bless the day he planted it."

Fred Grundy.

Point Out the Men

The article by Mr. G. C. Streeter in Farm and Fireside for November 10th, "Honest Commission Men—and Others," is entertaining reading, but so far as its value to producers is concerned it reminds me of a chart which states that a certain channel is beset with sunken rocks, hidden shoals and dangerous cross currents, but fails to indicate the location of these danger-points.

That there are many dishonest commission men has long been a matter of common knowledge, but to distinguish them from the other kind is where the difficulty has been. In order to aid us in our efforts to protect ourselves against the rascals in the business, Mr. Streeter should give the names and addresses of the growers whose produce was stolen in the cases he cites, and in the same connection make public the names of the commission men who did the stealing. When such frauds as Mr. Streeter describes are perpetrated, the full details, including name and address, should be published in every farm paper in the United States. In addition to that, the commission man who steals a consignment of produce should be put in prison the same as any other thief. Settling the matter by accepting a check for the amount stolen simply leaves him free to skin the next unfortunate that deals with him.

The cases in which he is made to disgorge are so very rare that the amount which he is forced to give up has no deterrent effect upon him; but wide publicity would do him serious damage and at the same time give the honest commission man a chance.

Court W. Ranslow.

Farm and Fireside fully shares Mr. Ranslow's indignation at the crimes of the dishonest commission man; but it calls attention to the fact that they are usually committed under cover of a corporate name which is changed whenever detection or scarcity of consignments renders change necessary. To follow such men by name would be pursuing a fugitive who puts on a coat of a new color every time he turns a corner. In his article, "The Reform of the Commission Business," in our issue of November 25th, 1909, Mr. Streeter has answered our esteemed correspondent's letter. The farmer's only safeguard is to patronize men whom he personally knows to be honest; and the commission business must be reformed by proper legislation and, still more, by well-organized coöperative marketing by farmers. Editor.

Agricultural News-Notes

The watchword of the American farmer should be "Diversify and Coöperate."

The Minneapolis, Minnesota, barrel-making shops turn out from one and a half to two and a half million barrels each year.

The growing of Burley tobacco in northwestern Missouri is increasing rapidly. Nearly two thousand acres were devoted to this crop this year.

Three hundred Lima-bean growers representing four bean-growing counties in California recently met and advised the farmers in those counties not to sell for less than three dollars and seventy-five cents per hundred pounds. *

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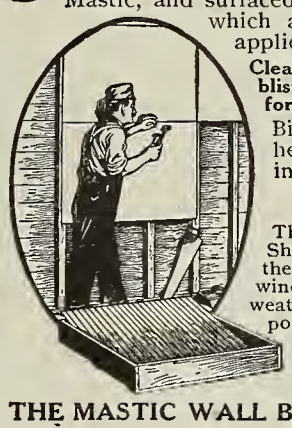

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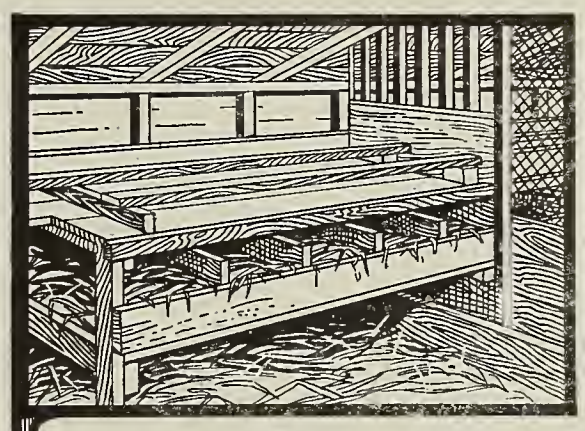

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Fruit-Growing

By Samuel B. Green

New Varieties of Apples

An Oregon subscriber asks about several new apple varieties. The Akin, or Akin Red, as it is sometimes called, is a beautiful, dark red winter apple of pretty good quality. It appears to be especially adapted for fancy trade and for dessert use. The tree is said to have been grown in Illinois from seed brought there from Tennessee. It was first propagated in 1868. It is a moderately vigorous grower and productive. I do not know that it has been widely tested long enough to know just what it will do, and should not think of planting it instead of Jonathan, unless I knew it had proven successful for a considerable time in a given locality.

I do not know Green's Improved Baldwin. There are, however, a number of types of the Baldwin apple, and I take it this is one of them.

The Gano is of the Ben Davis type, and in the nursery it is with difficulty distinguished from this variety. The fruit is more highly colored than the Ben Davis, less striped and more of a solid, deep red color, with a contrasting spot of clear yellow. At times it resembles Jonathan by its deep red or purplish color and by its abrupt basin. It seems to be adapted to about the same range as the Ben Davis, but is perhaps of better quality.

American Blush is the name by which the old Hubbardston of New England was known in some portions of New York and elsewhere. Some fruit-growers, however, are very positive that it is different from this. It is a handsome fruit that in New England, where it has been most grown, has not equaled the Baldwin in popularity. It may, however, be far better adapted to other sections.

The Winter Banana apple is a large fruit, clear pale yellow, often with a beautiful blush, and aromatic. It is of good dessert quality, but too mild in flavor for kitchen use. The tree is a fairly good bearer and comes into bearing young. It has proven profitable in many of the Western irrigated districts. It originated in Indiana, and was sent out from Monroe, Michigan.

Care of Neglected Orchard

A Kentucky farmer states that he has twenty-five acres of inferior land planted to fruit-trees, which have been neglected and that they are now overgrown with weeds and vines. In a case of this kind I should plow the whole surface as soon as may be. I would go over the trees this winter and remove all insect eggs, examining the trees for borers and removing them where found, and if any pruning is needed, would do it sometime this autumn or early in winter. Most of our fruit-trees may be pruned without injury at any time during the winter when the wood is not frozen. It is a good plan, however, to cover all wounds over three fourths of an inch in diameter with a coat of white lead.

Apple, pear and cherry trees at six years of age may have little or much value according to their condition. If they have been stunted, the question is whether they can be started into growth again. Trees of this age growing in nursery rows are too big for orcharding purposes, and have almost no value, while if properly planted out, they should be capable of producing a bushel or more of fruit each year.

I would suggest the use of a manual on the general subject of fruit-culture. "Popular Fruit-Growing," published by the Webb Publishing Company, of St. Paul, at one dollar per copy, would perhaps fill your needs, as it treats especially of the underlying principles in connection with the growing of fruit.

Pruning Plum and Cherry Trees

As a rule, plum and cherry trees require little pruning, other than to shorten in awkward branches and to keep the head a reasonable distance above the ground. This matter will, however, vary with the different species and even with varieties. Some varieties of plum, like some varieties of apples, are disposed to take on very awkward forms when left to themselves, and need considerable directing, especially when young. Others grow so naturally into the form we wish that little, if any, pruning is needed. A good rule to follow in pruning is not to remove any branch unless you have some reason for it. Occasionally, I come across persons who think that apple-trees should be pruned each year, but as a rule this is a mistake. There may be some sections of the country where it is desirable to prune each year, but it is not a general rule.

It will not kill plum-trees to prune them if the work is done at a suitable time. If they are looked after each year and slightly pruned, if need be, during the month of June, there will be no danger of injury. Heavy pruning is not desirable for any kind of tree. Occasionally some varieties of plums become so loaded with fruit buds that they bear too heavily and make little new growth. If such conditions are permitted to continue, the trees soon overbear and die out. Such trees may need heavy pruning, shortening back some of the main branches quite severely, so as to introduce new wood; but this is seldom needed where the soil is kept well fertilized. Heavy pruning had best be done in late winter, and all wounds three fourths of an inch or more across covered with grafting-wax.

Getting Rid of Moles

Moles are really helpful animals, in that they destroy a large number of injurious worms and grubs in the soil; but sometimes the trouble from having them about is far greater than any good they do. There are a number of mole-traps that work fairly well, and sometimes they may be destroyed in considerable numbers by watching where they are working their burrows just under the surface of the land after a rain, and with a spade stuck in back of them, turning them on top of the soil, where they may be destroyed. Where, however, they have permanent burrows, I think the best way of reaching them is by the use of bisulphide of carbon. This is a liquid much resembling gasoline in appearance and explosive qualities, and the way to use it is to saturate a piece of cotton batting about the size of an egg and place one in each of their runways. The vapor from this will kill all life confined within. It is not dangerous to use in an open room or in the open air, provided one is careful about fire.

Plums Decaying Before Ripe

Plums decay before they ripen from several well-known rots. Among the most frequent is the common rot of plums, peaches and cherries, known as the "monilla." To hold this in check, it is necessary to spray with Bordeaux mixture, but if the dried, mummified plums that remain on the trees during winter are picked off and destroyed, it will aid very much in preventing the rotting of the fruit the following year. In using Bordeaux mixture for the prevention of this rot, the trees should be sprayed before the buds open in the spring. This will destroy the spores then on the trees. After the plums have set they should be sprayed again, and where there is much trouble from this disease, a second spraying two weeks later should be given. I know this recommendation is a difficult one to follow where but few plums are grown. In such cases, I think perhaps all it is worth while to attempt is to pick off and burn or bury (at least one foot deep) all the dried fruit and the rotten fruit as fast as it appears.

Ripening Late Varieties of Pears

Some of our best varieties of pears are the winter sorts, and these must be gathered before they are ripe. In a small way, perhaps, the best method of handling them is to place in boxes between strips of cloth, woollen being preferred, in a cool, not too dry, place. They will then ripen up gradually. If they are not coming on fast enough, a higher temperature will soon cause them to ripen, but, as a rule, I think a moderately low temperature produces better quality than a high heat. On a large scale it is customary to pick the pears carefully, placing them in paper-lined boxes, and, for some of the best specimens, wrapping each one separately in paper. Treated in this way, they are shipped at once, and are seldom offered to the consumer until ripe. This is the way most of the winter pears that come to market are handled.

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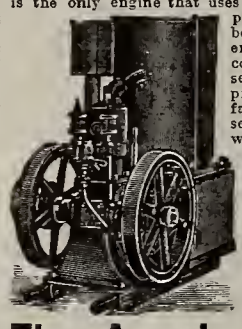

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Gardening---By T. Greiner

How to Make a Cheap Greenhouse

A WASHINGTON reader, some few weeks ago, asked for plans to build a "small greenhouse cheap." In order to give an intelligent answer, it would be necessary to know for what particular purpose the greenhouse or "hothouse" is to be used. I suppose that the purpose is, mainly, to either keep some house plants over winter, and perhaps propagate from them so as to have a full supply for home use and neighbors, or to grow some winter vegetables, especially lettuce, for the family and later, especially, to grow the stock of plants for the home garden or for a small market garden.

I have a small even-span greenhouse of this kind suitable for either purpose. It is thirty-two feet long and ten feet wide, heated with a hot-water heater. The sash bars, which take the place of rafters for the glass roof, are fourteen inches apart, and the glass (fourteen by ten inches) is butted (not lapped) and held in place by close-fitting cap strips over the bars. Cost of house, without heating system, about one hundred and fifty dollars; hot-water boiler and pipe system about one hundred dollars. The side walls are double, of matched boards, covered with several thicknesses of building-paper and siding on outside, up to the height of the benches, then a row of windows up to the gutters or eaves. All the woodwork except outside walls is Southern cypress which is practically rot-proof and indestructible.

This house has given me good service for a number of years. During the winter, however, I use it as a plaything, or pastime, or for experiment, more than for real practical purposes. In other words, I spend money on it rather than get money, or money's worth, except experience, out of it. I usually grow winter lettuce for the family in it, but I would probably find it cheaper to buy what lettuce we want at that time than to raise it; and I have come to the conclusion that it would not pay to raise hothouse lettuce on a small scale. It only pays on a large-scale business basis.

The real purpose of this little greenhouse, however, is the production of the plants I need for the garden during spring—onion seedlings, tomato, pepper, celery, lettuce, egg-plants, etc. The cheapest house, and in some respects the best, is a lean-to. You can put it against the south side of a barn or other large outbuilding, having the sides and front of matched boards, inside and out, and the roof of glass resting on sash bars, or even of common hotbed sashes.

Heating Contrivances

The most convenient and generally satisfactory way of heating a small greenhouse, or plant-house, is by means of a hot-water boiler and a system of iron pipes. Some people use cast-iron pipes of large dimensions. I prefer the smaller iron pipes, and find the two-inch size very suitable. The heater I use has a magazine which is filled twice a day with a mixture of pea and nut coal. Four or five tons of it will be sufficient to keep this house going from the first of November until spring.

Such a system of heating, however, is not indispensable, especially where the house is only used as a "plant-house" during the latter part of winter and early spring. You may construct a fireplace at the west end of your lean-to or at one end of an even-span house by digging a pit of proper depth and constructing a flue underneath the house to the opposite end, where the chimney is located. Fire may be started and kept during the cold days of latter part of winter, using four-foot wood or coal for fuel. When it comes toward spring, the fire may be kept only during the night or in dark and chilly days. Of course, this system of heating, which is quite common for the so-called "fire hotbeds" used for growing sweet-potato plants in some localities, is far from being the most convenient or least troublesome. It gives fairly good results, however.

The small lean-to, when used as a plant-house in the manner mentioned, may also be heated by a common heater or box stove, using either coal or chunks of wood for fuel. I would have the stove in a sort of ante-room divided off from the plant-house proper and depend on warming the latter only by the stovepipe which should run the whole length of the house or, at most, by additional radiators, and with this simple system we can accomplish our purpose—namely, that of growing our supply of vegetable or flowering plants in by far the cheapest way. The average home grower might easily put up such a lean-to without great effort or much expense and heat it at the cost of some chunks of wood or a ton or two of coal.

Remnants of the Egg-Plant Crop

The Last of the Egg-Plants

Late in October I gathered the remnants of the egg-plant crop. Some of the plants were then still well loaded with good specimens. A crate of gathered specimens, a couple of plants and three mammoth egg-plants gathered for seed purposes are shown in the accompanying picture. The smaller ones, of course, were intended for culinary uses. If we protect them carefully from even the least touch of frost, before or after gathering, they will keep for some time, and when properly cooked taste about as good as when taken fresh from the patch. But a touch of frost is fatal to them. They soon decay. Winter squashes, if guarded against exposure to frost, may be varnished, and will then be reasonably safe from rot affections and keep a long time. Treating egg-plants this way might be worth the trial.

The large specimens on top of the barrel were the ones from which I took the seeds—a rather small quantity—for planting in the greenhouse next March. The egg-plant is of all garden vegetables the one which offers the greatest obstacles for the home gardener to gathering the seeds. The latter are embedded in a lot of pulp from which they do not readily separate. I let the selected specimens grow to full maturity, and then wait some more until they are nearly on the point of softening by rot. I then cut them to pieces, rejecting all the pulp that contains no seed and all the skin, etc., then mash the remaining pulp as best I can in a keg or pail or tub, and finally add lots of water, letting the pulp float off the top, and just gathering the comparatively few seeds that sink to the bottom and drying them. In this way I manage to get a sufficiency of good seed for my own planting. I doubt, however, whether I could thus make money by raising the seeds for sale.

A Pleasing Climber

L. L. K., an Illinois reader, writes: "Last year I watched with interest a mass of honeysuckle-vine along the south side of our yard clambering over the fence. It was green the entire winter, except about one month in late spring. It has been there for years, growing luxuriantly, and growing more and more dense and massively beautiful. I have been thinking about setting bunches of it around the entire yard along the fence so as to have a perfect hedge of it. When should it be set out, and can it be easily controlled?"

This is probably one of the many species of climbing honeysuckles (*Lonicera*) which are well adapted for covering walls, fences, trellises, etc., and many or most of which have handsome, sweet-scented flowers. Most of them are also quite hardy. The trumpet honeysuckle (*L. Sempervirens*) is evergreen southward, and possibly this may be the species of which our friend speaks. With proper care, there is little danger of the honeysuckle becoming weedy or beyond control. Climbing sorts are usually propagated from cuttings of the dormant wood. You may take up the "bunches" and transplant them in either fall or spring.

Book on Berry Culture

A Washington reader also wants me to name a good book on "growing berries." I have been looking my library over to find the various books on this subject, but could not get hold of many that are adapted to the wants of the novice. Whole chapters are devoted to the various sorts of small fruits in a number of standard works as, for instance, in the "American Fruit Culturist," by J. J. Thomas, of which twenty or more editions have already been printed; in Barry's great work on Fruit-Growing; in the elaborate Cyclopedia of American Horticulture; etc. We also have various small books on special bush fruits, as strawberries, grapes, etc. The most useful work on bush fruits of all sorts, suitable for the purpose of inexperienced fruit-growers or beginners is "Bush Fruits," by Fred W. Card, Professor of Horticulture in the Rhode Island College of Agriculture, etc. It is very complete, quite up to times, and reliable. Its price is one dollar and twenty-five cents.

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Poultry-Raising

Green Bone an Egg-Producer

In order to get best results from poultry, their surroundings should be kept as near to summer conditions as possible. Not only should the housing be comfortable, but they should be provided with the different kinds of food or their equivalent that Nature provides during the warm season. When at liberty in summer, a hen's daily ration is made up of grains, seeds, green stuff, insects and worms. It is a fact that a hen when at liberty will leave almost any food, no matter how tempting, to chase after an insect or snatch a worm. Throw down a handful of grain and a few pieces of meat, and the meat is always the first thing eaten. Hens need animal food.

At this season the poultryman should be feeding principally for eggs. I have found, however, that there is no single egg-producing food that can be fed with profit exclusively. A variety gives the best results.

In order for the hen to produce eggs in abundance, she must have food that will supply the component parts, particularly the protein and fat.

These are found in a greater or less degree in the grains and vegetable foods, but it is an established fact that fresh-cut green bone is one of the very best foods for the laying hens during the winter season, containing as it does all the elements that enter into the composition of the egg—protein, water, fat and ash—all found in the right proportion in green bone. Furthermore, being strong in protein, it serves the double purpose of furnishing egg material and also supplying material for building up the tissues and organs of the body which are constantly wasting away. This is especially true with the laying hen.

Hens take to green bone eagerly on account of its animal nature. Another great advantage is its ready assimilation. In feeding it, however, care should be exercised, as the hens are likely to take too much. Beginning with a little at first, the amount may be gradually increased until each dozen hens get one pound of the green bone.

While some poultrymen prefer to feed it daily, giving it every other day has brought me the best results, though of course this depends on conditions. Active fowls can safely eat more of it than the more sluggish ones can, as much more will naturally be consumed in the building up of the tissues and organs of the body.

I have found bone to be one of the cheapest chicken foods when its value as a food is taken into consideration.

In connection with green bone, foods rich in carbonaceous elements should be fed to supply heat and energy during winter, and when this is done there is no good reason why the egg-basket should not be filled with the most profitable of farm produce. R. B. Rushing.

Sudden Deaths in the Poultry Family

A Connecticut subscriber writes: "I lost two hens last summer in a queer way. They were both lively and apparently well and laying every day; in both cases they went on to lay and died in the nest. Their combs and skins turned a sort of purple. I opened one, and she was in good condition and full of eggs. Her skin turned purple all over. Can you tell me the cause of death?"

It looks to me as if these hens were too fat. Had you not been feeding them pretty high, particularly on fattening food? When this is done, the internal organs are crowded with useless fat. Generally we find the liver enlarged and parts of the muscular system weak. The doctors call this fatty degeneration. Often hens troubled this way are found dead on the nest. The indirect cause of this is the weakening of the muscles governing the passage through which the eggs come, so that the hen is not able to lay her egg, especially if it be a large one. The strain caused in producing the egg is too much for the poor biddy, and the heart, already weak, gives way.

Have you noticed that your birds go often on the nest as if to lay, but come away without doing so? Do they seem restless at such times? Have they a dull appearance, with plumage somewhat rough? Are the eggs sometimes a bit misshaped or soft-shelled or overlarge? These things all point to an excess of fat. Reduce the heavy food and give plenty of cut clover, bran and middlings made into a mash. Keep the hens working as much as you can. Let them scratch for dear life until they are reduced in flesh. E. L. Vincent.

Make Them Work for It

A Michigan poultry-woman wishes to know whether it is best to give chickens corn in the ear or to shell it for them in the winter.

It is best for every creature to work for a living. Chickens, especially in winter, need to keep their blood in lively circulation.

So feed the corn in the ear. Make them shell it for themselves. We break the ears up into three or four pieces, according to size of ear, and throw it out on the ground if it is a fair, mild day and the hens can run out. If it is too cold for that, we have plenty of nice, clean straw on the floor of the houses and drop the pieces into that. The hens sing over their work, their blood stirs faster and it does them lots of good. E. L. V.

Palatable Green Food

Some green food is a necessity for the winter laying hen, also to the one that produces eggs for spring hatching. Clover leaves and tops cut up fine, scalded and mixed with a little ground feed makes one of the best winter feeds I have used. Feed it two or three times a week, always in clean troughs or dishes.

The following general system of feeding has given me first-class results for the past two or three years. Whole grain is given in the morning, except in the severest weather, when I start them on a light feed of warm mash, followed by grain in the litter, then some green food at noon, and grain again at night, varied two or three times a week with soft food. I never make the mash a full meal at any time. When feeding soft food at night I frequently follow it with a light grain feed. V. M. Couch.

General-Purpose Cross-Breeds

A Maryland subscriber writes: Two years ago I separated in a pen by themselves a small flock of Black Minorca hens and a White Wyandotte cockerel. The hens from this cross were almost all black, with no combs to freeze, and a deep breast-bone so that when fattened they weighed as heavy as the Wyandottes. This summer they proved to be a good laying strain. I think we could call them a general-purpose fowl as they meet most of the points required. Summer before last, out of two hundred and forty chicks that I hatched, only twenty-nine died. If any readers wish to experiment with this cross, I think they will find it useful.

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Live Stock and Dairy

It Pays to Humor the Cows

There is a marked difference between the dairy cow and other types of cattle which should be clearly understood that the right treatment may be given to produce the best results and make a success of dairying. The dairy cow does not lay on a very great supply of fat tissue beneath her skin to fall back on for nutrition and substance from which to produce milk in case of shortage of feed. The greater part of the nutriments of the food eaten are converted almost at once into milk which Nature has intended for the calf, but which man has learned to utilize for himself. If the food supply is reduced to a minimum, the fountain soon becomes dry, for the cow has few reserves from which to produce milk. This being the truth, it is clearly perceivable that the dairy cow, if she is to give us the flow of milk we want, must be supplied with an abundant amount of good, nutritious food from which to produce it.

Not only does the nutritious part of the food eaten go to produce a flow of milk, but the worn-out tissues of the body of the cow herself must be rebuilt. This also must be taken from the food, for the cow cannot give a great quantity of milk and be poor in body. So the food eaten is divided between the maintenance of the body and the production of milk. Quantity and quality of food both count in dairying. A great quantity of food will not produce a great quantity of milk if the food does not contain the proper nutriments. The dairy cow must be supplied with a great quantity of food if she is to be satisfied and feel contented; but it must also be of a good quality, for it is really the quality that produces the milk, while the quantity merely satisfies and gives the organism something to work on. Quality fills the pail.

Not only is a good supply of nutritious food the prime factor of successful dairying, but regularity of feeding is essential as well. If once the time is set for feeding, and regularity is started, the cow will be ready for her feed at that hour as regularly as the hour comes. Her digestive organs will have accustomed themselves to it, and the cow will not be hungry till that hour; but if it is overrun, she becomes hungry and fretful. Fretting and worrying is a great handicap to the dairy cow. So she must be regularly fed, for if the food comes irregularly, the milk flow will do likewise.

With regularity of feeding there must also be regularity of milking. The full supply of milk is not in the bag ready to be drawn out before milking-time comes, but a great amount of it is produced by the glands during the operation of milking. The bag, however, is usually filled and the cow becomes accustomed to this, but if the milking is delayed and the bag fills unusually full, it begins to pain the cow and the glands cease to some extent to secrete more milk, and they will not be stimulated to good activity during the operation of milking. This injures the glands and produces a decrease in the milk flow. So the cow should be milked regularly at set hours. And it is also advisable that the persons milking the cows do not change often, for each person has a little different manner of milking and a change causes the cow to feel uneasy and in some cases, if the change is repeated too often, it may injure the bag and the cow will give less milk. At milking-time it is best that the cows be comfortable and contented; she should have consumed at least a part of her food before the milking begins, so she will have been satisfied and she will be willing to give up her milk. It is also well that she should have had access to clean, fresh water before milking.

Good care and treatment should be the unvarying rule. The dairy cow is of a sensitive nature, but she has a good disposition. She responds quickly to good treatment, and is also quick to take offense. If she is abused, she knows it only too quickly, and the sunny disposition is prone to disappear. She should not be excited. An excited dairy cow will not produce a good flow of milk. Their movements should be slow and gentle. They should never be chased by a dog. Especially is this very harmful to them when their bags are full just before milking.

The barns and quarters should be kept clean and neat, so that when the cows are brought in in the evening to be milked, they will not be disappointed, but will rather settle down in a contented manner, which shows that they are satisfied. They should be well bedded. The barn should be kept moderately light and well ventilated. The barn for winter during cold weather must be kept moderately warm. Fifty degrees is a fair average for a dairy barn. It may vary some for winter and summer.

As for exercise, it is very essential that the dairy cow should have plenty of it. This should not be of a very brisk nature, but just a slow strolling around in the open air as she picks at some grazing. Without this exercise, the dairy cow will not produce a good flow of milk.

Summed up, then, the requirements of the dairy cow are good, wholesome food, regularity in feeding and milking, good care and treatment and plenty of open-air exercise. These constitute the essentials of successful dairying.

Gregor H. Glitzke.

A Model Dairy Herd and Their Model Home

Note the window space, admitting health-giving sunlight. Note the "cupola," and openings near ground level—outlet and intakes of a ventilating system. Lastly, note how the L-shaped barn shelters the yard on two sides.

Pure-Breds for a Song

A number of us have purchased and reared some fine pure-bred Jerseys at a nominal cost.

We are twenty-odd miles from a Soldiers' Home and a rather good-sized city. A number of high-class Jersey herds supply the town and Home with milk.

The calves are not wanted and can be purchased at three or four months of age for a mere song. We take our wagons over and bring home the most promising ones for three or four dollars a head.

We feed warm milk in bottles until we teach them to eat. When milk is scarce we scald meal, bran and oil-meal, straining this and feeding in lieu of milk with good results. We use one teaspoonful of cotton-seed meal to a pint of bran and meal mixed, and add hot water till there is a pint of the gruel. After straining, the sediments are fed to chickens and pigs, so are not wasted. The calves soon learn to eat roughness, bran, shelled corn and so on.

In almost every locality there are just such pedigreed or high-grade herds whose owners do not care to bother with raising the calves. Farmers who are watchful of their opportunities can pick up these little animals for almost nothing, and the trouble of raising them is well compensated for by the gain of introducing this superior blood into the herd.

D. B. P.

Some Barn-Building Points

Even this early some farmers are thinking of next year's new barn. Others ought to be thinking of improvements on the old one. Before getting down to plans and specifications it is well to recall to mind some of the fundamentals on which good barn-building is based.

Good drainage is a consideration that should have equal weight with convenience in the choice of a site. The land should slope away from the barn in at least one direction. If there is any choice, an open soil is better to build on for warmth and dryness than a clay, especially if the foundations and floor are to be cement. On clay, a layer of gravel or, better, of cinders put down beneath the floor, does away with much of the traditional cold and dampness of cement.

Up-to-date builders are breaking away from the idea of the basement stable. In these days of hay-lifters there is less necessity for driving onto the first floor, and the gain in healthfulness is worth that loss in convenience. To get full advantage from above-ground stabling, our plans should allow plenty of window space. A light stable is not only easier to work in, but the sunlight is a cheap and active germicide. The Bureau of Animal Industry have figured that in the ideal stable there should be six square feet of glass per cow.

The stable of any careful farmer is likely to be warm enough; the difficulty comes in furnishing fresh air in some other form than the direct draft. The King system offers a solution to the difficulty, and some one of its many variations will be found adaptable to almost any barn-plan.

The placing of the animals is a matter for convenience to dictate. Many farmers prefer to have them facing outward, with gutter between the rows. If enough cows are kept to warrant the use of a feed-truck, however, the labor saved in distributing feed offsets the extra labor of collecting manure from both sides of the barn, and the animals can be faced inward. This scheme has all the advantage in the way of cow comfort—the animals are not irritated by facing the light, and the manure odors are not concentrated in the center of the barn.

F. N. Corsen.

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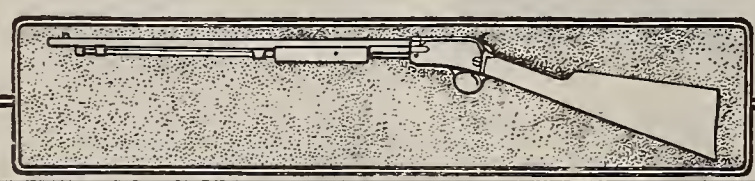
W  W

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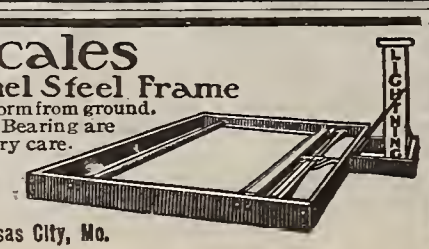

KANSAS CITY HAY PRESS CO., 124 Mill St. Kansas City, Mo.

Winter Care of Ewes

How many of us appreciate that this time of the year, when the ground is covered with a mantle of snow, is one of the times when it is most vital for the shepherd to show his good judgment in the care of his flock. Only the man who likes his sheep and cares for them with a husbandman's love of his flock will attain the highest success.

Every good flock-master knows that the drain on the ewe's system is as great at this season as at any time during the year and that she must be cared for accordingly. Ewes are not like cows or sows which are growing only offspring, but they are growing a fleece as well, and they must be fed in proportion to the demands made upon their systems. They do not need any expensive feed, but they do need plenty of nitrogenous feed, such as clover and alfalfa hay. They need that kind of provender to grow strong lambs and heavy fleeces.

About the best way to handle a band of breeding-ewes is to give them a little corn-fodder early in the morning scattered on the blue-grass pasture as far from the sheds as possible—even a half mile is not too far. From one to two stalks of fodder is enough for each ewe. The larger ears of corn should be husked out of this fodder; a small nubbin or half of a medium-sized ear is ample for each ewe. No matter how cold it is, they will go after this fodder, unless it is storming badly. After the fodder is eaten, they will paw the snow off the blue grass and nibble there for hours, and enjoy doing so. It is far better for the ewes to take this daily exercise than to be fed in the yards.

Early in the afternoon the racks in the yard should be filled with alfalfa or clover hay, so that when the ewes come wandering back from their corn-fodder and blue-grass pasture, they will have a feed of clean, bright hay waiting for them. The exercise in going to and from the place where the fodder was strewn will give the ewes an added appetite, so that they will eat their hay with a relish and go into their night quarters in good physical condition and with a feeling of contentment which means money for the flock-master.

Feed all the hay they will clean up—no more and no less.

The night quarters should be dry and comfortably bedded. A shed tight on three sides with the south side open is the best protection that can be given even here in our rigorous South Dakota. Ewes will not do well in a tight barn. If they are dry underfoot and overhead, and out of drafts, that is all that is necessary.

Ewes handled in this way will come through the winter in the best of physical condition; they will grow a good fleece and produce one or two strong, vigorous lambs. If the ewes have had all the alfalfa or clover hay they will clean up every day and have had enough exercise to keep them in robust health, there will be but little trouble at lambing-time. There will be an abundance of milk in the udders, and the mother-love will be strong, and there will be but few, if any, disowned lambs. The lambs will come strong and vigorous and ready for their first meal in a few minutes. The percentage of losses will be small and the profits large. But best of all will be the pleasure of the knowledge of having well cared for the flock you are trying to build up. PAUL H. BROWN.

Some Dairy Wrinkles

Hang your shovel up on a good hook. Don't stand it up against a post or the side of the barn to be knocked down into the filth.

Get the cows in just the minute a cold storm comes up. You may have feed you can afford to burn warming up cold and wet cows; I haven't, and few farmers that I know of have.

Hustle the pails of milk out of the stable as soon as you can after milking. Milk is just like a sponge when it comes to taking in foul smells. These are what spoil milk and butter.

Don't think that you are cheating somebody else when you let the milk-pails stand all night and use them in the morning without washing. You are cheating nobody but yourself, and surely cheating yourself. Don't forget that.

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A curry-comb, such as you use for the horses, and a good stiff brush, in the hands of a man that has the grit and patience to use them, are worth lots of good feed at any time of the year. Does the cows good and makes them look good, too. SYLVANUS VAN AKEN.

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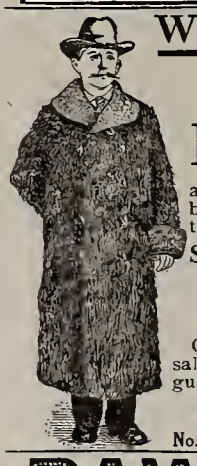

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Live Stock and Dairy

The Unborn Colt

From early fall till late spring I have found to be the most critical time in handling and developing the mare and foal. Far too many of us seem to think that when we have bred our mares in the early spring, and they have started the development of another young foal, the real work of raising the colts is practically done until the enjoyable time of selling and receiving the money for them. But from my experience and observation I have learned that this is only the beginning of the horse-breeding business, or rather, the ending. The breeding is the beginning, and the selling is the ending.

Yes, the breeding is the beginning of the new-comer, but it is not the beginning of the mare, for she must have been properly carried to this point to be in the proper condition for the operation, if the colt for next year is to be made the most profitable.

There is all the difference in the world in colts and mares. Take a mare that has been properly and carefully brought through the winter when the foal was being carried, and that has received this kind of treatment all the way through the season, assuming she has the right kind of blood in her veins and has been bred to the right kind of a horse, she will have a colt that the other man will want and be willing to pay for with every dollar that there is in him. Take another mare of the same blood and type and even bred to the same sire at the same time, but which has not been cared for, handled and fed in the same manner as the other, and what will be the difference in the colt? It is useless for me to say that it will be a scrub colt, even though there is good blood running through its veins.

Blood, of course, is the foundation of the colt-raising business, for without the backing of a good ancestry, no colt can be developed into the fine specimen that would be possible with the improved blood, no matter what kind of care and handling he gets. This is a worn old truth, but one has only to look around the breeding fields of our country to see that some old truths are still worth repeating. Still, good breeding is wasted by bad handling. What constitutes the proper handling of the mares with foal to bring them through the period of development so as to give us the most profitable colt? Chief among the essentials in handling the mare are feeding, watering, exercising and grooming. These are essential duties that must be performed right every day of the mare's life, for on them directly does the health of both mare and foal depend.

There is no one kind of feed-stuff that is suitable for an exclusive diet for the breeding-mares during the winter, neither is this the case in summer. Even when on green June pasture they must have something to balance the grass. But as green grass is a horse's natural food, I am lead to believe that the feeding during the cold winter months is far more important. Corn has for years been the almost exclusive diet for horses, mares, mules and cows. I am not condemning the use of some corn. I use it myself for feeding my mares, but not in excess. Corn is a heating food, and for that reason is better suited for use in winter than summer. At the same time corn is not the best food for the growing and developing foal which the mare is carrying. Oats fed in the proper amounts is an excellent article to use in connection with a little corn, and I also strive at all times to have some kind of legume roughage to feed them in connection with the corn and oats. These three feeds in proper amounts form a very good ration for the mare, with the addition of an occasional mess of some root for refreshment.

I am a believer in using a few roots for my mares, as they relish them and it seems to keep them in better spirits than when they are omitted. They seem to act as a bowel regulator, and they are a big factor in good health.

Still, feed and management are not at all the whole story. The ancestry factor precedes these and influences their effectiveness. Horse-breeding is both an art and a science, and must be followed on scientific lines. The mare and sire must be mated so that when the foal is dropped it will have the good qualities of both, with as few of the bad qualities as possible. Selecting the right combination of sire and dam is where the breeder's finest judgment comes in. We must breed for health, first; then for strength, durability and condition. Also, we must have special-purpose horses. When breeding, the very best of mating and handling will give enough common offspring without our breeding for them; thus, it is easily seen that we should use nothing but the very best special-purpose sires, and the mares should be selected with the same predominating idea.

It is the height of folly to breed a little scrub mare to a fine horse and expect to have dropped in the next spring a real nice, up-to-date colt. If we want draft-horses we must breed from drafters on both sides of the mating.

No animal can be worth the most money unless he is of good, quiet disposition. I do not like to handle and use a "wild" or "fool" horse. Nor does the market want such horses. Yes, almost any kind of an animal will sell, and will even sell for its worth; the point is that its worth is not nearly as great as the better bred and broken animals.

If the old rule of Nature that "like produces like" holds for disposition as well as for body conformation, and I think it usually does, we must grow our colts from mares and sires that are of good, quiet dispositions in order to have the colts thus. I firmly believe that the time will come when there will be no such thing as what we call "breaking" our colts. They will be bred so high that they will only need training. By nature, animals are wild to a great extent, but this wild nature is now greatly bred out, and by the continued efforts of the scientific breeders the horse will in future years—many years of course—be bred to have much better condition than he now has, just as he is now far ahead of a generation or two back. The horns are being bred off the Hereford cattle, and it is just as consistent to my mind to think that in future years the greater part of the mean or bad qualities can be bred out of the horse.

R. B. Rushing.

Dairy Memoranda

Many a cow has been spoiled by shabby treatment when she was a calf. A good cow must have a good constitution, good bone and good muscle. Growing heifers should not be kept too fat, but their feed should be such that their growth is constant and unstinted.

Some farmers leave pails of milk setting around on the frozen ground or hang them up some place while they do the "chores" and then "cuss" the cream-separator and its maker because the machine cannot separate as much cream from chilled milk as from milk separated as near animal heat as possible.

M. A. C.

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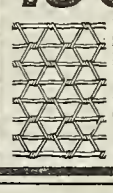

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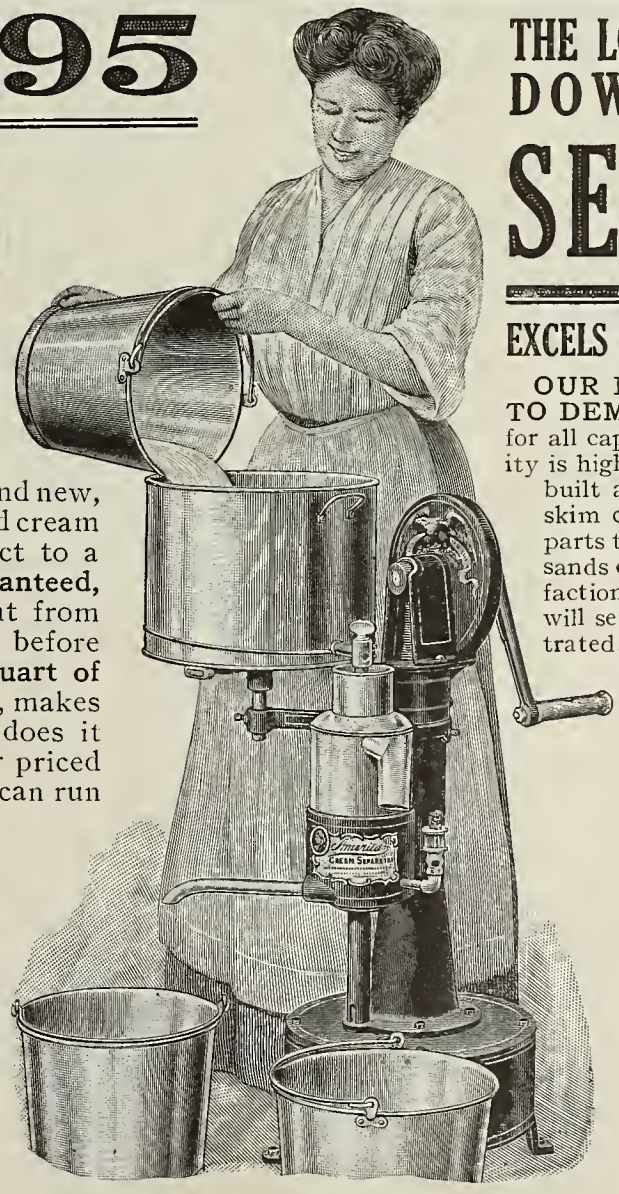

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FARM AND FIRESIDE

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The Charm of Knowledge

THE man who gets the most out of his business is he who knows most about it, and he who knows the most about any subject is he who likes it best. The young fellow who takes to electricity dreams in terms of ohms, farads, watts, resistance and "E. M. F." But if he could be induced to delve into the deeps of knowledge to which the farm leads, he would dream of the delights of such things as the breeding of both plants and animals instead. Thousands of farmers are so filled with the charm of the art and science of farming that they would as soon think of leaving it for another field as a missionary would of leaving his station to become a wine agent—and no sooner. There is not a breed of farm animals the history of which is not as interesting as Gibbon's Rome or Macaulay's England. The man who knows all about the breeds of horses and cattle knows Europe. The very dog that follows the sheep is a foot-note to history, and refers to the hills and dales of Scotland or England. In the poultry-yard, Asia and the Mediterranean lands fight their battles no less to-day than when Xerxes invaded Greece, or the Huns overwhelmed Rome. Why, even the alfalfa in the field or mow leads him who studies it back to the Spanish Conquistadors who brought it to California when men wore coats of mail, and met the Indian arrows with lances. The flock-master who sympathizes with his sheep is acquainted with the fields of Shropshire or the Downs or the dry plateau of Spain. Through a thousand windows farm life looks out into the world, and, to him who loves it, in through every one of them creeps the breezes of that knowledge which makes the charm of life and creates the love with which the laborer should go to his work.

Why the Jump From Wholesale to Retail?

ON THE opposite page is an examination by Mr. Welliver of Secretary Wilson's efforts to find out what becomes of the consumer's dollar when he buys meat. The conclusion seems to be that the local butcher is the man who gobbles the most of it. This may be true. There are combines of meat-retailers almost everywhere, just as there are among retailers of other sorts. Before we decide, however, that the butcher makes more money than other local dealers, the profits in meats and those in other lines should be compared. It does not appear that Mr. Wilson has done this. In the sixteen cities mentioned by Mr. Welliver, the average profit on meats as found by Secretary Wilson is thirty-four per cent. It has long been a maxim of trade that the retailer must get an average of about thirty-three-and-a-third-per-cent profit on all lines if he succeeds. The biggest question is, "Why is this high profit necessary?" The answer to this is the high rents of the average site where retail trade is carried on. Run down to its lowest terms and its last analysis, the farmer will find a big, big slice of the consumer's dollar absorbed to make those great real-estate values that cause lots in cities to be sold by the square foot. There has been a deal of talk about this cost-of-living business. Now we are beginning to get at the facts, and with the facts in hand can seek intelligently for a remedy. The Wilson investigation is eloquent of the need of a better system of getting the foods we produce from the field and pen to the table. This is the greatest problem before the farmer—greater than farm management, even.

Another Conundrum for Wilson

WHILE examining the question of meat prices, it will be well for Secretary Wilson to bear in mind that consumers' dollars to the number of $10,582,000 went as net receipts to the packing firm of Armour & Co. in the last fiscal year. With the net receipts of the Armour Car Co., the total net rises to over eleven million consumers' dollars, and after taking out the fixed charges of the concern, the actual profit is thirty-nine per cent on $20,000,000 of stock. Probably the other members of the Beef Combine did as well. With such profits as those of packers and retailers taken at two successive steps in the meat business, the wonder ceases at the huge gap between meat in the pen and meat in the platter.

Talk That is Not Cheap

THE "Farmers' Club" of New York is a flourishing institution. It could scarcely fail of success, as it includes in its membership such hard-handed Men-With-the-Hoe as the Vanderbilts. A similar organization is forming at Chicago. Mr. Arthur Merker, a Windy City agriculturist, is a moving spirit. He was interviewed at the Saddle and Sirloin Club for a daily paper, and paused long enough in his farm work to tell the reporter that the organization will follow the lines of its Gotham prototype in promoting the growing of fancy stock on the fine country places owned by Chicago millionaires. Monthly dinners will be held, at which the various problems confronting the Saddle and Sirloin Club grangers will be discussed. The life-and-death importance of the upkeep of the soil together with the making of a living will not confront them at these repasts. Farming is to these people a game of greater or less interest, not a strenuous treadmill operation like that of the old-fashioned prison task in which the prisoner had to pump or drown. They can step out of the treadmill whenever the water rises too high. The real farmer has to pump to keep it from rising. And how much more vigor and vim and intelligence he could bring to the work if he would meet his fellows once a month or oftener as the Chicago make-believe farmers do, in a good, jolly, cordial dinner, at which the problems of real farm life could be pleasantly discussed. Here's the lesson of the kid-glove farmers for us—social life allied to farming.

Farming Worth Teaching

A SPEAKER at the meeting of the American Federation of Labor recently asserted that the average American boy on leaving school is in the confusing plight of not knowing what to do. This is only another way of saying that he does not know how to do anything well. He had in mind city boys. Except in some few cities where industrial education has been started in a limited way, the city boy is fitted by his schooling in the common schools for no occupation at all. His fitness for a place in the ranks of the unskilled arises from his possession of a body, limbs and a brain—and these he had when he began school. The country boy is better fitted with an occupation, for he learns farming every day of his life. Many farmers believe that he learns all the farming he needs in this way and that the rural schools need impart no farm training. Probably there are many farms where the boys get better schooling in their fathers' business than even a good school could give, but the question is not whether all farm children need instruction in their occupation, but whether the average skill of the next generation would not be as much improved by industrial education in the country as in the city.

Punish Adulterators

EVERY fruit-grower and almost every farmer uses chemicals, like Paris green, Bordeaux mixture, arsenate of lead or other poison, for the killing of fungi, blights, smuts or insects. The adulteration of these has become such a grievance that a bill has been introduced in Congress (H. R. 2218) to punish adulterators and prevent shipments of the adulterations from state to state. It is to the advantage of all farmers and gardeners that this bill be passed. It is an application of pure-food principles to fungicides and insecticides. A bad spray may lose you a crop. Write your congressman and senators, asking their interest in the Hayes Bill, H. R. 2218. It is an honest measure devoted to the cause of honesty. Show your representatives that you are awake to your own welfare in this and all measures in which you are interested.

Congress did one good thing for the farmer along this line in authorizing the Department of Agriculture to test the veterinary serums, antitoxins, etc., on the market. Antitoxins used on human beings are required by law to be of definite strength; the veterinarian using commercial antitoxin has no such guarantee. The matter of government supervision of this business is of equal importance to the veterinarians and to the farmers who count on them for the care of their stock.

Suspended Sentence

THE blue jay has long been under sentence of death, by verdict of the ornithologists, as a general, all-around undesirable citizen. But the Department of Agriculture now puts in an appearance for him, and asks for a suspension of sentence. The department investigators have examined the viscera of two hundred and ninety-two blue jays, and found that seventy-five per cent of the birds' diet is vegetable matter, and the bulk of the remainder seems to be made up of crickets, mice and other noxious insects and animals. Only two stomachs contained the remains of young birds, and but three the shells of eggs—and the eating of the young and the eggs of other birds is the chief count against him. The jay is a cheerful and brilliant rascal, and we shall be glad to see him liberated by the court of last resort. And if he is, the English sparrow will be about the only bird the farmer can see killed without being called upon to mourn a friend. His case, we fear, is closed.

* * *

THE Australians seem to be as good poultrymen as pugilists. They exhibit a record for 1908-9 of a White Leghorn pen of five hens averaging two hundred and thirty eggs each for the year. The five leaders of the five best pens averaged two hundred and twenty-two and a half each, and in the whole competition were six hens averaging the astonishing number of two hundred and forty-five and two thirds eggs each for the year. We can show nothing like that in this country. One poultryman offers fifty dollars each for a dozen hens that can do two hundred each per year, and one hundred dollars each if this average is boosted to two hundred and twenty-five. What ails us? Hadn't we better send a commission to study the Australian methods? Our only comfort is that we have a better market—or, at least, a larger one.

* * *

DECEMBER, January and February are most important months to the corn crop. Is your seed good? If it germinates, does it start strong, so as to make good, vigorous plants? Is it a good "breed" of corn, in which the hereditary life force will exert itself in making what you want—corn? Is it properly stored? Do the ears bear kernels which run even in size and shape so that the planter will drop the correct number to the hill? If you don't know the answers, you should. And there are, of course, a lot of other things to be looked out for if you are to get the best crop possible next year. Corn-tending in winter pays big money for the time expended.

OUT OF THE LETTER-BOX

EDITOR OF FARM AND FIRESIDE:—

It was funny, the two "Back Talks" to Lewis in your issue of September 25th. The first from an Arkansas man who declares "I am a Republican" just as a somewhat noted New Yorker was prone to announce "I am a Democrat." This Arkansas Republican seems to regret having paid in advance for FARM AND FIRESIDE, because Mr. Lewis is writing free trade, democratic, socialistic doctrines which appear to disturb his peace of mind.

The next "Back Talk" is from a North Carolina Democrat who judges Mr. Lewis to be a Republican "from the way he writes," but would gladly have you devote two pages to him instead of one because "he is a statesman" and "an honest man." Assuming that Mr. Lewis is a Republican, evidently he and the Arkansas man are not of the same brand. One seems to be a Cannon-Aldrich Republican and the other a Dolliver-La Follette Republican.

After all, what's in a name? It is the principle involved, and a broad patriotism free from narrow personal or sectional selfishness in its citizens, that makes a country free and strong and rich. The Arkansas man may be in the lumber business, and the tariff suits him. If he were a California lemon-grower, and the railroads filched the tariff the government gave him by increasing the freight rates, he might take a different view.

California. H. H. HOPKINS.

The FARMERS' LOBBY.

By Judson C. Welliver

Secretary Wilson Finds Many a Slip Between Producer and Consumer . . . A Congress That Balks . . . Relative Efficiency of the Big Stick and the Winning Smile . . . How Congress Puts in Its Time . . . One Senator Who Isn't Crazy About Regulating Capitalization . . . What We May Expect From the Present Session—and Why.

Secretary Wilson has found out what makes meat cost so much, and he has acquitted the farmer. He has just announced the results of a great investigation which followed the steer from the pasture-lot and the feed-yard to the table of the consumer in fifty cities. He figured out its price at every turn, and here is what he found:

For the fifty cities—large, medium and small—in all parts of the country, the average price paid by the consumer to the retailer was thirty-eight per cent higher than the average paid by the retailer to the wholesaler. In Chicago, the greatest meat center on earth, the retailer's price averaged forty-six per cent higher than the wholesaler's price. Omaha, the third greatest meat center, showed the retail price only twenty-three per cent above the wholesale. That is, the conditions in these two great market cities being generally similar, the retailers in Chicago, by dint of better organization or less conscience, have succeeded in taking just twice as much as they have in Omaha. The fact that there are plenty of retail meat-dealers in Omaha proves that they can live and thrive on twenty-three per cent. It causes wonder as to the sort of automobiles they use in a forty-six-per-cent town.

The percentages by which the retail price exceeded the wholesale price in a list of cities were:

New York and Philadelphia, 20; Buffalo, 28; Boston, 36; Baltimore, 17; Washington, 42; Chicago, 46; Cincinnati, 25; Omaha, 23; Kansas City, 28; Minneapolis and St. Paul, 35; Milwaukee, 40; St. Louis, 39; Mobile, 64; San Francisco, 39; Seattle, 24; Denver, 37.

But this is not all. The investigation went into much detail in determining whether the farmer has received his share of the immense increase in the ultimate cost of meats, and it proves that the farmer, far from being the plutocrat he is painted, has, in fact, got very little of the amount of which the consumer has been mulcted. In fact, as to beef, the farmer has got almost nothing; as to pork, he has done better, though here likewise he has come out of the small end of the horn of plenty, while the retail butcher and the packing trust have rolled luxuriously out of the big end of the cornucopia, wreathed in smiles and festooned with greenbacks.

Which seems most decidedly to bear out some observations which I ventured in a previous letter to the effect that if we would get down to the brass nails of this problem of advancing cost of living, we would find that the worst trusts in the land are the local combinations of retailers in many lines to maintain prices and profits and big houses and servants and touring-cars and summer estates.

* * *

The poor we have always with us—and Congress, at this season of the year. In a general way, we have some altruistic notions of our duty to the poor, and similarly we entertain vague impressions of Congress' duty to us. We lament a good deal of failure in our treatment of the poor, and we bewail much of Congress' failure in its management of us. We are prone to wonder what we ought to do *about* the poor, and what we ought to do *to* Congress.

I venture to opine that we will find this question of what to do to Congress much more acute before the end of its present session. For, unless all signs fail, Congress is going to give an exceeding bad account of itself. Not for want of ample and pointed suggestion from President Taft, but because Congress has got into the habit of acting only when a large, knotted stick is waved over it by a stocky, near-sighted man with a countenance composed mainly of large teeth, thick glasses and jaw. President Taft has put away the Big Stick and has adopted the winning smile as his trade-mark. It is undeniably a winning smile; but things have reached a pass wherein Congress doesn't "produce" without more telling inspiration.

The President is a strict constructionist. He believes it is his duty and right to recommend policies to Congress, but that it isn't his business to boss Congress. Now, Congress is willing enough to do things, if only it hadn't manacled itself with rules in the House and tradition in the Senate, until it is compelled to get permission from a minority of its own members before it can move. That permission is not to be had, because this ruling minority's business is to prevent, rather than promote, accomplishment.

Thus it falls out that Congress has come back to Washington, perfectly understanding that the country expects it to saw a huge lot of progressive wood, and realizing that its failure to do so will be tantamount to defiance of public opinion. The difficulty is that the dominating minority, headed in the Senate by Senator Aldrich and in the House by Speaker Cannon, is going to use its control to prevent legislation. Theodore Roosevelt never got a single one of his vigorous policies enacted into law without fighting the leaders for it. He had to line up the country at his back, to ally himself with the Democrats, to make every threat that politicians fear—and then he was able to wring a small part of what he wanted from a Congress that, having thus unwillingly yielded, promptly went home and, patting itself complacently on the back, related how splendidly and patriotically it had performed high service which should end all debate about its reëlection!

Remembering that the Hepburn railroad law was a pretty skimpy performance, and that it was the utmost that Roosevelt could get after the greatest fight of his administration; then bearing in mind that the downward revision of the tariff which was promised in 1908 turned out an upward revision when in 1909 it was achieved under the mellowing influence of a President who had substituted the smile for the club; keeping these respective accomplishments of the two opposed policies in mind, you will be able to understand why nobody in Washington, and notably nobody in Congress, seriously expects any significant legislation to pass the coming winter.

* * *

Perhaps it wouldn't be good for the country to get the sort of a legislative program it wants enacted this year. The statesmen who are going to block the way insist that it would be most unfortunate. I shall not take up that discussion at this time, though later I hope for occasion to defend my belief that the country, and not the few congressional obstructionists, is right. The point I want to make right here is that if nothing is accomplished this session, then nothing will be accomplished during the Taft administration. That sounds so pessimistic that it must be explained.

For a dozen years government expenditures have been increasing at a terrific rate. The business of making up and passing the appropriation bills has demanded larger and larger shares of the time of Congress. There are two long and two short sessions during a presidential administration. The two short sessions, beginning in December and ending March 4th, include about sixty-five legislative days each. It is impossible to get down to business till after the holiday recess, so the period for effective work is reduced to about fifty days. That is barely enough to make up and pass the appropriation measures. Just a modest little management, engineering, jockeying and filibustering is ample to force any less pressing business over to the end of the short session, to die when adjournment comes by process of law.

So the short sessions are eliminated. There remain the two long sessions. We are just entering on the first of these. A new Congress is on hand. The promises of the presidential year are fresh in mind, at least in mind of those old-fashioned statesmen who deem it worth while to bother keeping political pledges in memory. There is no limit to the time the long session may last, except that a year hence it must give way to the next session. It could continue a round year if necessary, and then merge without a jar into the short session.

But as a matter of practical politics, the long session must be wound up sometimes before midsummer at latest, to let congressmen go home and look after the business of getting renominated and reëlected. Constituents can't be trusted with those details. Mr. Congressman must kiss the babies and shake the horny fists and distribute the more or less convincing cigars; and there's no use questioning the propriety of it. He has always done it and always will; and you and I would do it, too, if we were in his place.

So we have a practicable term, for the long session of Congress, of seven or eight months. That is long enough to pass the appropriation bills, and do a good deal more, if Congress really wants to do it. The present session will have no excuse of lack of time. The Republican platform pledges it to certain things. President Taft has reminded it of those things, and some others. It has the time. It must perform, or else convict itself of either incapacity or treason.

If it doesn't do business, it is liable to be turned out of office at the congressional election next year. If that happens—and it has happened in a startlingly large proportion of the mid-administration elections since the government was founded—then there will be a Republican White House and Senate, with a Democratic House of Representatives, a combination that is never expected to do much, just as oil and water are not expected to mix well. And so the second long session of the presidential term is wasted.

But, you say, if the Republicans still carry the House next year, why should they not accomplish a good deal in their second long term? The answer is that their second long term will begin in December, 1911, when the whole country will be talking presidential politics. It will have to get done some time in May or, at latest, June, in order that statesmen may attend the state and national conventions. It will be torn by the thousand and one distractions of "presidential year," and in no frame of mind for cool, calm consideration of legislation. Moreover, the ever-resourceful opposition to Everything will be pointing out that this is "really not the time for innovations." It will urge that "the national conventions are about to meet and it would be better to wait for their declarations of principle on such matters," and then "to receive the verdict of the country." So there is amplitude of pretext for a do-nothing policy; and that is almost invariably the policy of the second session of the administration.

Whence I say that if the session now opening does not do things, the Taft administration will not do things.

And I had previously ventured the guess that the present session will not do things.

Is that clear enough, as to my conclusions and as to the reasons for them? Let me add that I have studied this congressional establishment at close range for a long time, and never ventured a sweeping prophecy with less concern for my reputation as a forecaster.

* * *

The fact is that Congress is the most highly developed instrumentality for doing nothing that is now extant. It has simply got to be reformed unless this country is satisfied to fall completely out of the procession of modern social and economic progress.

Let's see if we can figure who wants to keep Congress a do-nothing body, and why.

President Taft recommends legislation to control the capitalization of great corporations. He and Roosevelt before him have pointed out how inevitably the mass of people must pay higher prices or higher rates, in order that inflated capitalization may have its pound of flesh that it calls dividends.

Just a few days ago there was announcement that the American Telephone and Telegraph Company had secured control of the Western Union Telegraph Company. It had previously controlled most of the telephone facilities, and was closely allied with the Postal Telegraph Company. Thus we are confronted with a merger of the telegraph, telephone and ocean cable facilities of the whole country. The last available statements of these companies shows their capitalization thus:

Western Union, stocks issued	$ 97,340,606
" " bonds	42,072,000
Postal, stocks	91,380,400
Am. Tel. & Tel., stocks	131,551,400
" " " " bonds	152,000,000
Total	$514,344,406

On that half-billion of capitalization the public is now producing returns to shareholders and bondholders. Now, as soon as it was announced that this gigantic merger was accomplished, the cheerful pronouncement

[CONCLUDED ON PAGE 28]

Miss Selina Lue and the Soap-Box Babies

By Maria Thompson Daviess

Illustrated by Ruth M. Hallock

CHAPTER V.—The Gospel-Boat Meeting

"When I see a curl of religion sprouting up, I think it's best ter kinder shine on it pleasant-like, but not to take too much notice until it roots good."
Miss Selina Lue.

FRIDAY, the thirteenth, dawned clear and mild for Miss Cynthia, and the early morning breezes that ruffled the fair hair on her pillow breathed no hint of adventure, though they wakened her long before the usual hour.

"She was wonderful to behold, was Miss Selina Lue"

She opened her eyes on a window-framed landscape with the down-river hills and banks in the distance. She had the feeling that she was going on with a dream in the top of the barn in which she had been just about to voice her admiration for the picture to a tall and glorified Miss Selina Lue in gray knickerbockers, when her consciousness formed complete connection, and she sat up and stretched her white arms with a smile. The impertinence of the man to presume to mix in her dreams, even if his pictures were wonderful!

As Miss Cynthia dressed in a leisurely way, she found it hard to keep her thoughts from straying to the bluff and the barn. She had for more than a week controlled the inclination of her feet to wander in that direction, and now she felt impelled to see Miss Selina Lue and Blossom—and— Oh, dear! how she did love those pictures!

On her way down-stairs she looked cautiously in at her mother's door and found her awake and in the act of taking her morning nourishment. Everything Mrs. Jackson Page did was in the way of a ceremony, and she received Miss Cynthia graciously—in a point-lace breakfast-cap.

"How are you, mother, this lovely morning?" she inquired gently. Mrs. Jackson Page preferred to be spoken to in cadences of deepest sympathy at all times.

"As well as I can ever hope to be," she answered languidly, though she sipped with a degree of relish the second cup of coffee and began a business-like attack on a substantial tray of breakfast the maid had set before her. "Are you going in to town to-day? I had hoped you would look at that house on University Avenue. If I have to leave my ancestral home I want a place of abode suitable to our position. It will not be for long I am afraid, and after I am gone—" she raised a lace handkerchief to her eyes and left Miss Cynthia in doubt as to whether she was bemoaning the prospect of her daughter's bereft condition on University Avenue or her own on one of the streets said to be paved with gold.

After a proper degree of concern and consolation, Miss Cynthia beat a hasty retreat down the steps. The telephone stopped her on her way to the outside world and an animated conversation ensued, conducted by Evelyn Branch, who was up and doing far earlier than was her wont.

"You dear thing," she hailed across the city, "to be awake so early! Did you get your worm all right? I was just calling to leave my number for you. I am so excited—I—"

"Then I infer you did catch your worm," laughed Miss Cynthia into the telephone.

"It isn't a worm I am after; it's a man."

"Too early then, dear, unless you want a brisk farmer."

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"Anything, but, *cherie,* listen! do you remember my telling you about that perfectly delicious man I met in Washington last winter?"

"Which one?"

"There was only one—like him. You know, it was Alan Kent, the artist! I told you about going to his studio and what a compliment Aunt Kate thought it was to have him ask us. Don't you remember my telling you about him? My dear, he was the whole thing all winter. Well, grip your heart tight—he's here in the city!"

"Really?" Miss Cynthia's voice tried hard to be what Evelyn expected of it.

"Yes, I saw him on the street last night, and before I could make Harold stop the auto he was gone and we couldn't find a trace of him anywhere. Isn't it exasperating to think of that gorgeous creature loose here in the streets, and times so dull in the summer? There were only three men at the Country Club last night, and they were grumpy and attentioned to death. So glad you weren't there, for it was bad enough without you."

"Are you sure you saw him," ventured Miss Cynthia with no more than a polite show of interest.

"Sure? Well, Alan Kent is entirely too *distingué* a man for anybody to forget. My dear, he is most attractive—and it is so romantic about his father and all. The old man is a lumber king and refuses to have anything to do with him as long as he paints. And there the poor dear goes along and prefers paltry little ten-thousand-dollar contracts to decorate guild halls to the old fellow's millions. Where do you suppose he can be? I had Harold telephone all the hotels, and he is not at one of them. I must have him at my dinner-dance on the twentieth, dead or alive. Though I do dread his meeting you—the impression I made was too slight to run such a risk. I doubt if he remembers—"

"I am sure you needn't mind about me at all. I feel he won't be interested—"

"Dearest, I don't trust you! well, I must say good-by. You are not so interested in finding the dear creature as I thought you would be. How is your mother?—Oh, I am so sorry! Give her my love. And has Grasse sent your pink gown home yet?—Delightful! Well, good-by again!"

The moment Miss Cynthia had hung up the receiver she realized that she had deliberately withheld valuable information from her best friend—in perfect cold blood. And why? She picked up the pink-rose hat and fled down the hill to the bluff.

When she was just in front of Mrs. Kinney's she saw the "delicious" one leave the barn and descend over the bluff to the river, kit in hand. Without acknowledging it to herself, she would have liked to lock him in the barn—out of harm's way. Well, harm was a rather emphatic name for Evelyn, but she was a very lovely thing, especially at dinner-dance times. Miss Cynthia finally reached the door of the grocery and paused a moment on the steps. Nobody being in sight, she called softly.

Miss Selina Lue poked her head out of her little lean-to bedroom and greeted her in a voice of bustling excitement. I'll be there in a minute, Miss Cynthie, honey. Mr. Dobbs have got a holiday and he wants us to go up to the lock with him to three-o'clock meeting on the gospel-boat what's tied up there this week. Set down in the cool till I come!"

Miss Cynthia smiled as she seated herself upon the steps, for she knew how seldom Miss Selina Lue went out of calling distance of the grocery door. She rarely went to town, and then only on the most urgent business. She had a decided aversion to the cars, even with Mr. Flarity and Mr. Jim Peters motoring and conducting.

"Not that they ain't good drivers, she always hastened to say, "but I prefer to travel with a thinking critter a-pulling of me, instead of being druv by a little box of lightning that ain't got no conscience about running away with me. Besides, there are more ways in the city to git killed two or three times a minute than a body could dream up in a week. I should think all the townfolks would be mighty good, and live lives prepared to go. I never draw a free breath hardly, with being snatched to the top of houses with seventeen stories and coming down all the time trying to swoller my heart."

"I hate those fast elevators in the skyscrapers myself," Miss Cynthia had answered her sympathetically.

"They are all jest a part and a parcel of the running around of things. They ain't no peace in it all, and I am one that holds that peace are the air that religion breathes, and when it gits shet off from it, it sholy dies. I ain't tempting Providence by going down, lessen business calls me." And she had held to her determination.

If Miss Cynthia was delighted at the prospect of the excursion, she was still more so at the sight of Miss Selina Lue as she made her way through the boxes and barrels and cans to the full light of the front door. The picture was one of exceeding majesty, and the heart of Miss Cynthia was thrilled in awe. The foundation of the toilet was a black silk as stiff and rustling as any that hung in the wardrobe of Mrs. Jackson Page on the hill, and a genius had fashioned it some by-gone day up in Warren County. It was cut without stint of material, and hung about the tall, dignified figure of Miss Selina Lue in bounteous folds; also, it was adorned with a multitude of small bands known as pipings. It lay gracefully on the floor at least a foot all around and was lifted in front by one of Miss Selina Lue's black-lace-mittened hands. A wide, white-lace collar encircled her neck and was caught by a faded hair-brooch. But the bonnet was the crowning majesty of all; it was wide and scooped, and adorned by a decorous black bow on the outside, but in the front of the funnel there rested, just above the gray sprinkled water-waves, a rakish red rose that repeated the note of excitement in her cheeks. She was wonderful to behold, was Miss Selina Lue and "too darling for words," as Miss Cynthia told her with an impulsive squeeze.

"Mr. Alan only really 'came to' when seated by her side later on the steps"

"Where did you get it all, Miss Selina Lue?" she questioned excitedly.

"Lands alive, child, this is the dress my mother had before the war. I ain't wored it often, 'count of not-having time, but I thought I ought to put it on to compliment Mr. Dobbs for asking me ter go along with 'em. You see, it's this-away. Mr. Dobbs is jest the salt of the earth fer kindness, except cussing—but he ain't never perfessed and joined the church. So when he asked Mary Ellen and me ter go to this boat-meeting with him, though it do seem a kinder queer place to go to praise the Lord—a flat-boat tied to a lock—I said we must make out ter keep him company. Mary Ellen was fer backing down 'count of its being so hot to gear up tight and she so easy overhet, but I pervailed on her. I want us all to look nice, ter git Mr. Dobbs in a happy, consenting kinder mind. When I see a curl of religion sprouting up, I think it's best ter kinder shine on it pleasant-like, but not to take too much notice until it roots good. There they come now! Ain't they genteel. Bennie and Ethel Maud look jest like a picnic."

And Miss Cynthia smiled delightedly as she exchanged greetings with the enthusiastic family out on the quest for the soul-welfare of the head member. Miss Selina Lue's adjective had been an apt one that applied to them all. Mrs. Dobbs was buttoned up tight in a dark blue coat-suit, and the perspiration rolled down her happy face from the crown of her black velvet hat, with its remarkable blue bird, into her white cotton lace collar. One ungloved hand kept up a constant mopping. Ethel Maud was in white and starched to the limit of endurance and had pink bows tied wherever they would stick. Bennie and Mr. Dobbs were clothed in their Sunday best, and Mr. Dobbs beamed with pride at Miss Cynthia's compliments. But Bennie stood on one foot and covered it with the other in evident consciousness of their brier-scratched nudity.

"He wouldn't wear them shoes he had in the spring, and I couldn't noways impel him," explained his mother.

"My feet's sore," the delinquent grumbled shamefacedly.

"So's mine," whined Ethel Maud, standing first on one and then on the other.

"But you're a girl," said her mother decidedly, thus firmly settling the yoke of femininity on her young shoulders.

"Are you ready, Miss Seliny Lue?"

"Well, I think I must be, but I seem to have forgot something. Here's my reticule and my pa'm fan and I've got money in my glove to put in the collection, but, lands alive, Mis' Dobbs, I clean forgot to get anybody to mind the babies and the store. Whatever will I do? Mis' Kinney have gone to the wharf to stay till the boat comes by to give Mr. Kinney his lunch and Mis' Peters went into town and—and—"

"Oh, Miss Selina Lue, please let me stay with the babies and keep store! I would love it—and I will be ever so careful," said Miss Cynthia with dancing eyes.

"There now, there never was anybody like you fer helping along, Miss Cynthie, and I don't think they will be a mite of trouble. You know how I feed them at one o'clock, and the oatmeal and milk is hung down the well to keep cool. Don't let the Flarities turn over their boxes, and put a bib on Pattie Tyne when you feed her. I washed that dress twice yesterday, and I am afraid it won't hold together till her mother gits back. If anybody wants any thing they'll tell you the price and put the money in the jug behind the left counter. Good-by! Good-by!" and the party started down the hill.

Half-way down, Miss Selina Lue turned and called back to Miss Cynthia, who stood on the steps with Blossom in her arms: "Mr. Alan likes his eggs fried on both sides and his potatoes smashed."

Heavens! Miss Cynthia had had no idea that her offer of attendance on the soap-boxers had covered the duty of feeding the—lion. A wild idea of locking the grocery door and taking the entire small family home with her for the day instantly presented itself, but immediately a sense of mortification overcame her. The River Bluff Grocery doors had never been closed, in her knowledge, to those seeking food, and her honor forbade her doing it now. No, she had assumed Miss Selina Lue's

[CONTINUED ON PAGE 28]

With The Editor

Are You Really Using Farm and Fireside?

THERE'S a heap of difference between *reading* FARM AND FIRESIDE and really *using* it. If you simply *read* it, you will very likely get back your subscription price several times over in interest and enjoyment during the year. We hope so.

But if you *use* FARM AND FIRESIDE, as well as read it, you will get your subscription money back, in usefulness, many times over almost every issue.

Why not do both? First, *read* FARM AND FIRESIDE; Second *use* it. Use the departments which deal with your problems—whether it be fruit or cattle. We have made a point of getting the best man or group of men in the country to handle each phase or department of farming. *Use* their knowledge and experience.

Use the many suggestions backed by actual tests as to soil fertility and soil preservation. *Use* the housewife's department of practical helps; *use* the pattern department. *Use* every square inch of the paper. That's the way you can *make money* out of your subscription to FARM AND FIRESIDE.

If an article in FARM AND FIRESIDE does not give you all the information you want, write a letter to the editor. Ask him the questions you want answered. He will send you a careful, accurate, helpful answer—and it won't cost you a cent. If you want information on any farm subject, if you don't find that information in the paper, write to the editor, and he will get the information for you. When you become a subscriber to FARM AND FIRESIDE the editor feels that you have a right to all the help he can give you, both in the columns of the paper and by personal correspondence. Don't be backward—write to the editor when you want information.

Another Way to Use Farm and Fireside

Finally, *use* the advertising columns. Every advertisement published in FARM AND FIRESIDE has the stamp of our approval and is backed by our guarantee (see notice top of Page 16).

When an advertiser whom we do not know wants to use FARM AND FIRESIDE, we find out whether he is honest and reliable, if his goods are always as represented and if he always deals fairly with his customers. If we are satisfied on all these points, his advertisement is accepted for publication. Otherwise, he cannot use FARM AND FIRESIDE. That is why you can always patronize FARM AND FIRESIDE advertisers with confidence.

The advertising columns of FARM AND FIRESIDE are a great market-place where you can buy to decided advantage. *Use* them and tell each advertiser that you use them because they bear the indorsement of FARM AND FIRESIDE.

The Greatest Expert on Horses to Write for Farm and Fireside

MR. DAVID BUFFUM has joined the FARM AND FIRESIDE staff regularly as an expert writer on horse management. He stands at the head of all writers on horses in America. He is a fine writer and contributes to the best magazines regularly. He will at once furnish us a series of articles on breaking, managing and handling horses. These will deal with all the vices of horses, like kicking, shying, running away, balking and the like, and will tell how they may be scientifically treated and cured.

Mr. Buffum will also answer for us questions relating to the breeding, mating, grooming, bitting, breaking to harness, feeding for work, feeding for growth, harnessing, driving, training and handling generally of horses, as well as curing them of vices. He has bred horses for many years, having made specialties of standard-bred trotters, Percherons, and small ponies. He is a farmer and knows the horse business from the farmers' point of view and their needs. That's the way he will treat the subjects in FARM AND FIRESIDE. He is a writer, too, who can make his readers see the things he describes. His articles will be an important addition to the new FARM AND FIRESIDE.

HERBERT QUICK
Editor of Farm and Fireside

Another Authority

WE HAVE announced Prof. F. H. King, of Wisconsin, as one of our contributors. His articles will soon begin to come in. He will write on soil management. The era of intensive farming is coming in. The success of Mr. Detrich at Flour City, Pennsylvania, on a fifteen-acre farm, and that of Arnold Martin, Pawnee County, Nebraska, on twenty acres, each of which has been made the subject of a United States Agricultural Department Bulletin shows that intensive farming may be made to pay in this country, East or West. The Chinese, Japanese and Koreans are the best intensive farmers in the world.

Professor King will tell us in a notable series of articles some of the wonderful and interesting things he has seen in a study of these wonderful little farms of the Orient. Professor King stands at the head of his profession in America. He is known all over the world as an authority on soil management.

Advance in Agriculture

FARM AND FIRESIDE'S "Benefactors of Agriculture" series is now running. In it the best writers in America will deal with agricultural progress as typified in the men who have made epochs. We have now on hand a study of the new gospel of corn-breeding in the form of an article on P. G. Holden and his work, by Will A. Campbell; one on D. Ward King of split-log drag fame written by Forrest Crissey, and dealing with the good-roads movement; one by John Snure, the noted Washington writer, on James Wilson and his work as Secretary of Agriculture; one by Frederick W. Mackenzie, editor of La Follette's weekly, on Babcock and the Babcock test; one by J. C. Mohler, of Kansas, on F. D. Coburn, of Kansas, on the way a man can serve the agriculture of a state if he tries; one by Herbert Quick on Hardy W. Campbell and the dry-farming movement, and more are in preparation. These will be the strongest articles published in any farm paper on general agricultural advance and the men most felt in it.

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Sent carefully packed, postage prepaid.

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All of the above for only $1.00

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OFFER NO. 1. We will send FARM AND FIRESIDE for one year and the 1910 Baby Calendar, and your choice of any one of the following magazines for only 50 cents. Your subscriptions can be new or renewals. Papers can go to one or separate addresses.

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OFFER NO. 2. You can get your choice of any one of the above magazines for a year and FARM AND FIRESIDE for **two** years for only seventy cents. This also includes the 1910 Baby Calendar.

Big City Papers

These great city papers have special pages, each issue, of special interest to farmers and their families.

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12-25.

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(Here put a list of the papers you want)

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NOTE—If you wish any of the papers sent to other addresses, just say so, giving full name and address.

Miss Santa Claus

A Christmas Story—By Izola Forrester

Illustrated by Charles W. Licht

"I'M AFRAID you may have a hard time on this case, Miss Layton, and I'm mighty sorry to have to call you out a night like this. Just tuck that robe around you closely. It's a long ride."

Winona laughed, and pushed her suit-case under the seat of the doctor's buggy. The wind was blowing the snow in swirling gusts around her. She could hardly see beyond the horse's ears in the storm. From the doorway her mother was calling to her all sorts of advice, and she heard the children crying because Aunt Winona was going away again so soon.

"I haven't been home, you know, in three years," she explained to the doctor as they drove rapidly along the quiet side street. "It seemed odd to be called out on a case my very first night home, but I'm glad I can be of some good."

"Well, I thought of that, too, but there wasn't a soul I could turn to, and the poor chap's pretty sick. I think it's about the last fight. I wanted a trained nurse, and you know we don't grow them here in Beechley. Of course you'll be needed only for a few days, but it does cut out your home Christmas, doesn't it?"

Winona ascented wistfully. It was hard, this being taken away on a case her first night at home, after she had traveled all the way up from New York to spend Christmas with mother and the children. Someway, it had always seemed throughout her life as if just as she had been about to taste the cup of personal happiness some duty had turned up to take her from it.

The old doctor was talking along in his rapid, cheerful way of the town gossip for three years back, but she let her thoughts ramble as the horse picked its way with a surety born of years of travel over those same uncertain roads with their capricious "thank-ye-ma'ams" and unexpected turns.

She wished she had the courage to ask the doctor about Dave. Not a word had her mother said of him or the girls. Probably they were trying to save her feelings. It was over ten years since she had broken the engagement, broken it simply because she would not marry with the weight of responsibility that fate and Providence had placed on her shoulders. She had been the eldest of five, and when her father died, she had stuck to her post faithfully, taking care of an invalid mother and four turbulent youngsters. Sending the three boys through school and business college had swallowed up what ready cash lay in the bank. But they had turned out splendidly. She smiled proudly every time she remembered them, Rex at his civil engineering out West, Phil doing his first spouting at the bar down in a musty East Side court in New York, Gene, the youngest, counting on his third year's promotion at the home bank. Surely it was a good record.

Flo had been the hardest problem, pretty, capricious, lovable Flo, who would coax you out of your eye teeth, and then make you believe they were all in place again. Not a profession or trade would Flo learn. And at seventeen she had married. Winona liked to forget the rest. The lines around her firm, tender mouth would grow strangely hard when she remembered Flo's brief life and how she had come back to the home nest at twenty with her two babies, just to tell the home folks she was tired, and died. Surely those were unhappy memories.

How on earth could she think of marrying Dave, with Flo's two babies to support and her mother to care for? No one felt the responsibilities of life keener than Winona. She had plenty of pride and her own idea of duty. It had not been her fault that Dave had taken her words bitterly, had told her she was selfish and self-centered, that when a woman truly loved a man, her duty lay straight before her, with heaven's own warrant on the right of the way. She was to forsake all others.

"Been pretty successful as a trained nurse, your mother tells me," the old doctor was saying, as he turned the horse around into the post road. "Never been sorry you threw Dave Charlton over, I suppose."

"I never threw him over. I only asked him to wait."

Her voice was clear and sweet. The doctor's eyes were twinkling with a quiet appreciation of his own way of managing things. He had known the Laytons all their lives.

"Well, he's waited certainly," he laughed. "Dave's a woman-hater, did they tell you? No? Well, he is. Won't have a woman in his house since his father died and left him Kingston Manor. Shut up all the rooms in the place except his library and bedroom and kitchen. Lives like a hermit on the old place. He won't even speak to a girl."

She flashed a quick glance at him, but the darkness hid his face from view.

"Not really, doctor?"

"It's the truth."

"Just because—"

"Just because he says he was jilted by the only woman he ever loved."

Winona was silent. Somehow, she wanted to laugh. It was so like Dave to do this absurd thing. Thirty-five he was by now, and just the same moodish, sulky boy she had always known. She almost wished she had time to see him and tease him. Her own years of work had given her a breadth of view that took the keen edge off her love's loss. Suddenly the horse turned in at a familiar drive. Even in the storm she recognized the tall gate-posts and the pines that towered on either side, their great, low-spreading branches drooping with silver snow. But she caught her breath and asked no questions. The doctor had played a trick on her, but the thought that Dave was lying there in the big, lonely old house, sick and helpless, swept away all personal feeling and a big lump came in her throat.

The door was opened for them by old man Kittredge. Tall and spare, he looked like a ghost in the flickering lamp-light as he waited for them to enter.

"I brought the nurse with me, Uncle Kittredge," said the doctor, cheerily. "Just show her into Dave's room, will you, while I put the horse up."

Winona stood the recognition well. She even laughed as the old man told her it would be the death of Dave if he caught sight of a woman in the house. His fever was high and he was out of his mind.

"You know Davy's turned woman-hater," concluded Uncle Kittredge shakily. "He's a plum fool, too. If he had a good woman around here now, he wouldn't be on his death-bed all along of getting wet through last night down to the depot. He doesn't seem to take any care of himself. I tell you he needs a woman's love."

But he talked to the bare walls, for Winona had taken her suit-case and gone down the hall to the library. She knew where to find him. And not a trace of emotion showed on her face when the doctor came in and found her standing at Dave's bedside, nothing but keen, quick professional interest and attention.

"We're going to fight this to-night," said the doctor, taking off his coat and cuffs deliberately. "The lad's down with pneumonia, and the worst of it is, he doesn't care. I'll attend to my end of it, and you—well, I brought you along partly to help him care whether he lived or died, understand?"

She understood. All through the long night she stood at her post, watchful, tender, responsive to every whim of the sick man. And every time he called out her name in his delirium, she was there to answer, there to hold his hot, wandering hands in her firm, cool clasp and soothe him. It was dawn before he sank into a heavy stupor, and she sat beside him, one arm under his head, when the doctor took time to rest.

"I'm going to leave you with him for about an hour. You can 'phone me if there's any change for the worst. Carter's youngest is down with the croup, and I've got to see him."

Winona nodded her head in silence. After the doctor had gone, she waited. Surely it was the strangest Christmas morning of all her life. She watched the daylight steal in at the curtained windows and listened to the slow, faint breathing from the pillow. Had she done wrong, she asked herself. If she had those years to live over, would she choose the same path? No, no, she had not been wrong. Her duty lay with her mother, her home—but—she had loved Dave, loved him with a love that was sincere and strong. After all, it had only been one of life's mistakes. But now was the cup to be taken from her lips again? Her eyes, tired with the long night's vigil, filled with tears, and suddenly she bent over the face on the pillow with yearning tenderness.

"Dave, Dave," she whispered. "Can't you hear me, dear?" Dave did hear. How could he fail to recognize that voice coming from the girl that he loved more than life itself. "Winona!" he said weakly. "Then my dream has come true? Come, come and tell me that you love me!"

It was five minutes later when the doctor came noiselessly back after something he had forgotten. He paused at the door. The nurse was kneeling at the bedside, her arms folded closely around the figure there. The first gleam of sunlight fell on her hair. The doctor had never seen her look more charming, more beautiful. Dave's eyes were open, and the words he spoke faintly were not those of a woman-hater.

"Merry Christmas, Merry Christmas," laughed the doctor. "Thought I'd better hurry back and see how things were going. Any change for the worst, nurse?"

Winona rose, blushing, her dainty lawn cap somewhat rumpled, her eyes radiant with happiness and love.

"I am most happy to tell you that I think there's a complete cure, doctor," she said.

"Complete cure!" chuckled the doctor, his eyes turned mischievously at Dave. Finest case of heart failure I ever saw, eh, Dave, boy?"

Dave said nothing, merely motioned to the doctor to go on his way. He ought to understand that—that he hadn't seen Winona in years—how thoughtless old people are! But the doctor paused for one last shot.

"Just one word before I go, I didn't introduce her, Davy; the nurse, I mean. She's Miss Santa Claus."

"'Merry Christmas, Merry Christmas,' laughed the doctor. 'Any change for the worst, nurse?'"

Suggestions for Entertaining

A Cake Party

By Mary A. Parker

A Cake Party! Have you ever had one. They are the jolliest sort of entertainment. One was given by a girl whom the writer knows and it was a great success. The invitations which were sent to the girls read: "Will you come to my party on Wednesday night and wear a costume representing a cake of some kind, a cooky or a doughnut?" Those addressed to the men were the same, with the exception that they were asked to come dressed as bakers. Well, such a motly throng as assembled and such laughter when the "cakes" arrived, accompanied by the bakers.

The costumes of the girls were just as clever as could be. One represented a chocolate-cake. The girl wore a brown gown, trimmed with brown and white ruffles, and around her neck was a necklace of small chocolate squares. Then there was Sponge-Cake. She wore a corn-colored dress, trimmed with a fringe of tiny sponges, with a sponge necklace and a tiny sponge pinned in her hair. Of course it was easy to tell at a glance that she represented sponge-cake. Marble-Cake looked quite comical in her gown, made of patches of white, pink and brown, and Angel-Cake looked quite bewitching and charming in an all-white dress and paper wings.

Then there was Nut-Cake with a necklace of nuts and a white frock, the skirt of which was trimmed with festoons of strung nuts. Why, it seemed as though every cake recipe in the cook-book was represented, and when the girls and boys lined up before the hostess, such a picture as they presented! The hostess asked the first baker how he made sponge-cake, and after he had given some sort of a formula, he was permitted to take Sponge-Cake out of the line and talk to her for a few minutes. In this way the partners were provided. From the ridiculous recipes that the bakers gave, it was evident that they knew very little about their "profession." It did not take long for the guests to become acquainted with each other and everything went along with a swing. After the guests had danced and played games, refreshments were served. The ice-cream was served in hollowed-out sponge-cakes. Every one pronounced the cake party a big success.

Guessing Contest

A cake contest would be most appropriate to introduce at a cake party. Provide each guest with a slip of paper, on which the following questions are written; and ask them to fill in the answer:

1. What kind of a cake should a jeweler eat?
2. What kind for a politician?
3. What kind for a man who imposes upon his friends?
4. What kind for a lover?
5. What kind for a gardener?
6. What kind for a glove-maker?
7. What kind for a pugilist?
8. What for a geologist?
9. What cake for his satanic majesty?
10. What for the "Heavenly Twins?"
11. What cake adds variety to life?
12. What would one have if one ate all these cakes.

The answers are as follows: 1. Gold and silver cake. 2. Election-cake. 3. Sponge-cake. 4. Kisses. 5. Fruit-cake. 6. Lady-fingers. 7. Pound-cake. 8. Layer-cake. 9. Devil's Food. 10. Angel-food. 11. Spice-cake. 12. Stomach-ache.

For the first prize award a large cake, and for the second prize award a small cake.

A Good Game

The next time you give a party, try this amusing game. It is called "The Monkey," and is popular among young girls who enjoy a laugh on one of the opposite sex. The "monkey" is a man selected to leave the room. When he returns, silence reigns among the whole company. Puzzled by the serious faces of the guests, he naturally asks, "What is the matter?" They all repeat in chorus, "What is the matter?" The "monkey" probably says, "I do not understand," which is repeated after him. This continues until the monkey sees the joke, which, of course, he accepts good-naturedly.

A Pop-Corn Party

By Mrs. J. K. Shaw

Invitations are sent out on note-paper cut in the shape of an ear of corn, the kernels drawn and painted or colored on one side and the invitations written on the other. The corn may be popped before the guests arrive.

The entertainment of the evening consists of an animal-making and story-telling contest which is carried out in the following manner: A large pan of popped corn is placed in the center of the table and each guest is provided with a small dish of hot candy, which of course has to be made and used immediately. The hostess explains that each one is expected to make any animal or bird they desire from the pop-corn and candy, which is accomplished by sticking the corn together with the warm sweetmeat, the time limit being ten minutes. Each guest must then tell an original story about the product of their labors.

A first prize is given to the one making the best animal and telling the best story. An appropriate gift is the story of Hiawatha and for a booby prize a gilded ear of corn with a bow of baby ribbon on one end.

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Special Extra Prize. I will give you a whole box of six lovely and beautiful handkerchiefs if you are ***prompt*** and show me that you mean business. But you must be ***prompt.*** I insist on ***promptness.*** Send me your name and address ***to-day.*** Let me hear from you at once. Remember, you get the handkerchiefs in addition to the Dinner Set. The half dozen handkerchiefs is an ***extra gift,*** given you for being prompt. ***Don't delay a minute.*** Get your pencil and write ***to-day. Do it now.*** Remember, you get the 39-piece Gold Medal Dinner Set ***without cost.*** And besides an ***extra gift*** of six beautiful handkerchiefs for promptness. Address

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C. E. SMITH, 1493 Virginia St., Kansas City, Mo.
Please send me the 20 packages of post cards to give away on your 25c introductory offer. I want the 39-piece Dinner Set.
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ST., R. R. or BOX .....

THE CHRISTMAS SPIRIT IN PICTURES

Miss Booth, commander of the Salvation Army, distributing Christmas dinner - baskets to the poor at Grand Central Palace, New York City

From Stereograph, Copyright, 1906, by Underwood and Underwood, New York

Christmas-tree at Ellis Island, New York, which cheers and gladdens thousands of immigrant children who come to the New World

From Stereograph, Copyright, 1906, by Underwood and Underwood, New York

Christmas Day on the old Bowery Mission, New York City. Hundreds of Christmas boxes are distributed to the poor of the East Side

Santa Claus never forgets the poor children in the hospitals. Here he is, jolly as ever, handing out goodies and toys to the delight of the little tots

Glass-blowers at work making glass balls for Christmas-tree decorations. This industry is carried on by almost every family in the little village of Lauscha, in the Thuringian mountains

Peasant girl painting the glass balls. They are dipped into a pot of colored paint and then stuck in sand-boxes, where they remain until dry

A Page for Mothers

The Boy in the Home

By J. L. Harbour

"Is that you, Johnnie? Well, hang up your hat and reefer where they belong and stop so much noise. Be sure that you hang up that hat and reefer. Half the time I find them on a chair or on the floor and then I have to pick them up and put them where they belong. Don't whistle in the house! I have told you half a dozen times that the house was no place in which to whistle. Is that the place for your school-books? You pick up those books and put them on the table where they belong. Now, what do you want to drag that chair away out from that corner for? Look at that scratch you have made on the floor! Stop tumbling all those magazines and papers over. A boy can make more disorder in ten minutes than his mother can put to rights in two hours. Such a condition as you left your room in this morning when you went to school! I don't want it to happen again. Now sit down and see if you can keep still five minutes!"

Boys Dislike to be Nagged

That is what happens when some boys—too many boys—enter their own homes. It is a kind of a petty nagging and a petty tyranny that causes the boy to be happier in any other place than in his own home. He seems to feel that somehow he is always doing the wrong thing when he is at home and that he is there on sufferance. There is hardly an hour of the day when he is not told that he must not do this and he must do that. His natural instincts are all repressed and he is not let alone half as much as he should be. His mother sometimes remarks in his presence that boys are "such a care," and I once heard a mother say in the presence of her boy of ten years that she was "thankful that she had but one boy. Another one would drive her crazy." This is not fair to the boy. Sometimes he resents it openly and fiercely. Often he broods in silent rebellion over it. He comes to have the natural feeling that there is a prejudice against him in his own home and he feels that that prejudice is unfair and unjust. The average boy needs more letting alone in his own home. He needs more freedom, more liberty that he may be a real boy. There are some queer corners in a little boy's life, corners in which he hides away a good many things of which he does not speak, but he thinks a great deal about them. When his mother is, "thankful that he is in bed," he is often lying there wide awake trying to understand why it is that he is such a bother in his own home and why his mother should be so thankful that he is "out of the way."

Don't Coddle Your Boy

Sometimes the nagging of the boy is all the more exasperating when it is accompanied by a tone of honeyed sweetness and mawkish gentleness. Few boys verging on the long-pants period of life can help inwardly resenting this kind of admonition from their mothers: "Now, Percy, dearest, mama wants her boy to be a good boy and to mind what his mama says to him. She does not want to be cross, but she feels that it is her duty to make her boy obey." And so it goes on and on until there is nothing in the world Percy wants so much as to get out and go somewhere, anywhere, if he can only be treated as if he were a real boy with a real boy's rights and privileges. When parental authority descends to a constant nagging of the boy, home is apt to be the last place in which he wants to stay.

Lunch-Basket Sandwiches

By Margaret Whitney

If you are the mother of growing children, you know all about how hard it is to prepare their school lunches. The basket must look tempting when the small girl or boy takes the first peep inside, and yet there must be something nourishing as well as dainty about the school lunch.

Sandwiches are always a stand-by, and if they are carefully made, with the bread cut thin, children are not apt to tire of them.

Here are a few recipes for sandwiches which may be helpful to the busy mother who has the school lunch-basket to prepare every morning:

Egg-Sandwiches—Boil the eggs forty-five minutes, plunge into water and peel; rub them through a fine sieve, and to each egg allow one half teaspoonful of soft butter. Work to a paste, season highly and spread between thin slices of unbuttered bread.

Cheese-Sandwiches—One half pound of cheese grated fine, the yolks of two eggs boiled hard and grated, one teaspoonful of prepared mustard, one tablespoonful of melted butter, one of strong vinegar. Mix thoroughly and spread between thin slices of bread.

Ham-Sandwiches—Chop cold boiled ham fine, fat and lean together; to every cupful allow one tablespoonful of melted butter, the yolks of two hard-boiled eggs, one teaspoonful of lemon-juice and one fourth of a teaspoonful each of dry mustard and white pepper. Pound to a paste and spread between thin slices of bread.

Club Sandwiches—Upon a thin slice of buttered bread lay a lettuce-leaf, next a thin slice of crisp fried bacon, then thin slices of cucumber dipped in mayonnaise. Over this place another slice of bacon, another lettuce-leaf and, last, a thin slice of buttered bread.

Roast-Beef Sandwiches—Chop fine some cold roast beef and to one cupful of meat add one fourth of a teaspoonful of salt, one teaspoonful of tomato-catchup and one of melted butter. Stir until thoroughly mixed and spread on thin slices of buttered bread. The following is another way of making a roast-beef sandwich: Chop some roast beef very fine; taking care to use only the lean part of the meat. Sprinkle with salt and pepper and add a small quantity of horse-radish. Mix thoroughly and spread on thin slices of buttered bread.

Test Your Children's Eyes

By C. L. B.

When it is not possible to take children to an oculist, a test of their eyes should be given at home. And I wish I could make the necessity of it very plain.

We had been sending a boy to school for three years who was almost entirely blind in one eye. He always seemed nervous and irritable and never seemed to grasp things at a glance as he should. Finally our boy seemed so nervous and made such slow progress at school that I took him to a doctor, who was also an oculist. The doctor gave him a thorough physical examination—which all children ought to have before entering school—and when he came to examine his eyes, I said, "I don't think you will find anything wrong there." But in a moment I saw I was mistaken. The doctor covered one of the boy's eyes and asked him to name four-inch letters on a chart twenty feet away. He could not distinguish one from another. Then the other eye was covered, and he could read nearly the smallest letter on the chart.

Now, I could have found out that much at home. I could have tried each eye separately on letters or objects across the room and discovered that one eye was very defective, but I had never thought of it. So the child was sent to school half blind, to be ridiculed because he didn't learn quickly, and made more nervous and sensitive all the time.

Medicinal Value of Honey

By Elma Iona Locke

In cases of sore throat, hoarseness, etc., honey is almost invaluable. Below are a few good cough mixtures and gargles which are sure to prove beneficial if taken regularly.

Honey for Hoarseness—Take equal parts of honey and good, sweet butter, and melt them together. Take a tablespoonful quite warm four times a day, the last tablespoonful at time of retiring. It is good also for sore throat.

Honey Gargle—For sore throat take one half pint of strong sage-tea, two tablespoonfuls each of honey, strong vinegar and common salt. Gargle four to eight times a day.

Honey Cough Mixture—For a tickling cough mix equal parts of honey and lemon-juice with warm barley-water and sip it whenever the cough troubles.

Cough Mixture by an Old French Physician—Boil together one pound of honey, one pound of rock candy, one pint of vinegar and the juice of two large lemons.

Salve for Burns—A good home-made salve is made by whipping linseed-oil into melted beeswax until of the proper consistency.

Diluted honey is an excellent external application in cases of croup or colds.

Educating the Children

By Hilda Richmond

As rapidly as we are getting away from the idea that life will be a failure unless a college education can be obtained, there is still a wholesome reverence for learning, especially among country people. And we are also getting away from the idea that only the brightest boys in the family should be sent to college, leaving the others to get along as best they may by means of hand-work, though in some homes this still prevails. Often the bank account is started the very day the child is born and kept religiously for the college training, while in other homes strenuous efforts and much pinching attend the education of the boys and girls, as parents rightly reason that if nothing else can be left to sons and daughters, an education is the best portion after all.

Encourage Education at Home

But the trouble lies in ever thinking that only in high schools and colleges can educations be obtained. Of course this is the way hundreds of thousands of young people have been educated, but there are also hundreds of thousands of educated people who never saw the inside of a college building. If you can send your children to the higher institutions of learning, by all means do so, but do not give up in despair if your purse is too lean for such a proceeding.

So instead of bewailing the fact that the boys and girls will have to stop studying when they are sixteen or seventeen and get to work to earn their own money, encourage the young people to keep right on with their educations in spite of all difficulties. Indeed, long before the time comes for leaving school, begin educating them by providing plenty of books and magazines for them to read, and help them get everything out of life possible by teaching them to observe and train their minds to be alert and retentive. Above all things keep the doleful whine out of your voice and the falsehood off your lips that it isn't a bit of use for poor people to try to educate themselves. Statements of this sort have been the ruin of bright boys and girls everywhere, and the parents should not indulge in them. It isn't true that you must be ignorant if you cannot go to school, for countless multitudes of men and women have educated themselves when working with might and main with the hands under the most adverse circumstances. If you can't leave your children anything else, at least leave them the memory of a truthful, encouraging life and a helping hand in the midst of difficulties.

Correct expressions, the absence of slang, accuracy of speech and attention to the so-called little things of the home, all help to educate the boys and girls, and thus the home life is made brighter and better.

HABIT'S CHAIN

Certain Habits Unconsciously Formed and Hard to Break.

An ingenious philosopher estimates that the amount of will power necessary to break a life-long habit would, if it could be transformed, lift a weight of many tons.

It sometimes requires a higher degree of heroism to break the chains of a pernicious habit than to lead a forlorn hope in a bloody battle. A lady writes from an Indiana town:

"From my earliest childhood I was a lover of coffee. Before I was out of my teens I was a miserable dyspeptic, suffering terribly at times with my stomach.

"I was convinced that it was coffee that was causing the trouble and yet I could not deny myself a cup for breakfast. At the age of 36 I was in very poor health, indeed. My sister told me I was in danger of becoming a coffee drunkard.

"But I never could give up drinking coffee for breakfast although it kept me constantly ill, until I tried Postum. I learned to make it properly according to directions, and now we can hardly do without Postum for breakfast, and care nothing at all for coffee.

"I am no longer troubled with dyspepsia, do not have spells of suffering with my stomach that used to trouble me so when I drank coffee."

Look in pkgs. for the little book, "The Road to Wellville." "There's a Reason."

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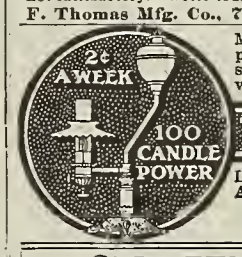

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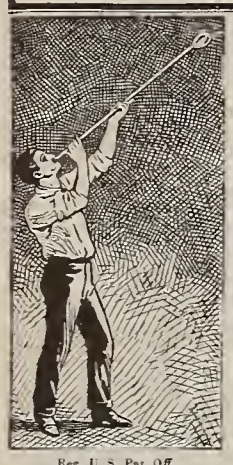

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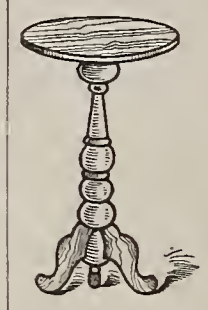
Sweet-Potato Croquettes

Boil six medium-sized potatoes, peel and mash fine. Add two tablespoonfuls of butter, the yolks of two eggs, one tablespoonful of minced parsley, a little cream, salt, pepper and nutmeg to taste. Form into croquettes, dip into beaten egg, then cracker-crumbs, and fry in hot cooking-oil.

Damp Salt-Shakers

When the atmosphere is damp, it is almost impossible to keep salt from caking. Try the following suggestion, it is sure to help you: Put in each salt-shaker one grain of rice. It will absorb all moisture.



Two useful articles made from an old-fashioned organ-stool

Don't throw away your old-fashioned organ-stool. It will come in most beautifully in making this useful table and foot-stool. Saw off the top and make a new top out of a round board stained or painted to harmonize in color with the pedestal. Remove the rod from the old top and put on four square block-shaped legs. Paint them, and you will have a good-looking foot-stool.

O. M. L.

Croutons for Soup

A good way to utilize stale bread is to make croutons of it. Cut the bread in cubes and put it in a corn-popper. Shake over the fire as if popping corn and it will brown very quickly.

Sash-Curtain Hint

It is so easy to tear sash curtains when passing a rod through their hems. This may be prevented by putting a thimble on the end of the rod. It will run through easily.

Two Chestnut Dainties

For a rich, delicate and delicious pudding try the following: Roast three pints of chestnuts, then remove the skins, and pound them fine. Mix thoroughly with three fourths of a cupful of soft butter, one cupful of sugar, two cupfuls of sweet milk and three well-beaten eggs. Flavor with rose-water or vanilla. Turn the mixture into a buttered mold, cover and steam for one hour. Serve very hot with any hot sweet sauce or a rich syrup drained from preserved fruit.

Chestnut-soufflé makes an equally delectable dessert: Peel and blanch one pound of chestnuts and cook them with a tiny bit of bay-leaf and a piece of lemon-peel in just enough water to cover them well until very soft. Drain and mash smooth. Mix well in one cupful of sugar, a tablespoonful of butter and enough beaten yolks of eggs to make the mixture of the consistency of boiled custard. Beat the whites of the eggs to a stiff snow and stir them lightly into the other ingredients. Turn into a buttered pudding-dish and bake in a moderate oven until lightly browned. Serve at once before it has time to fall. M. F. S.

Steak-Dumplings

Cut the steak into finger pieces and let simmer in a very little slightly-salted water for half an hour. Then lift them from the gravy and let them drain well. Boil some potatoes until tender, drain, season them with salt and pepper, a lump of butter and a little hot milk; mash them very smooth and make them into a paste with a little flour. Roll each strip of paste in a piece of the potato crust, put them into a dripping-pan in which a little butter or dripping has been melted and let them bake slowly about an hour or until the potato crust is well browned. Season the gravy in which the steak was stewed with salt and pepper, a few drops of onion-juice and a little tomato-catchup. Add flour to thicken slightly, cook until smooth and serve in a gravy-boat. This makes a most palatable and nourishing dish. Chopped chicken or veal may be substituted for the steak fingers and make a very dainty luncheon or breakfast substantial.

Chicken-Patties

Stir four tablespoonfuls of flour into four tablespoonfuls of melted butter until perfectly smooth, add gradually two cupfuls of white stock or hot milk and cook until smooth and thick. Add two cupfuls of cooked chicken cut small, but not minced, and season to taste with salt and red or white pepper. Line patty-pans with puff paste, fill them up with the chicken mixture, cover with the paste and bake in a quick oven. These may be reheated before serving.

Canned Peppers

Select firm, sound peppers and wash carefully; remove stem and seeds, cutting in halves or quarters; fill cans with the peppers, and pour over strong salt and water. Seal air-tight, and the peppers will keep all winter.

M. E. S. H.

Swinging Flower-Rack for the living-room

Good to Remember

A mustard-plaster mixed with the white of an egg will not scar or blister.

To keep steel knives bright: A small bag of quicklime put away among steel articles will prevent their rusting.

To prevent citrons, raisins, currants, etc., from sinking to the bottom of your cake, warm them in the oven before adding them to the batter.

To keep silver bright, occasionally soak it several hours in strong borax-water at boiling point, after which rub with a chamois cloth. It will brighten like new.

To prevent a musty tea-pot: When putting away the best tea-pot, drop a lump of sugar into it after it is well dried. This will prevent its smelling musty.

To keep the stove clean: A stove rubbed with a soft cloth and a few drops of turpentine will keep it black, and without polish; substances spilled on a stove treated in this manner can easily be removed with soap and water.

To remove a close-fitting can of baking-powder, shoe-polish, etc., place the can on its side on the floor with a piece of paper under it and, stepping on the cover, roll it back and forth under the foot. This will cause the cover to drop off with very little trouble.

Combination Bureau

This illustration shows a combination bureau, wardrobe and desk, which should prove invaluable in a small room. This article is four feet high, four feet wide and sixteen inches deep. The wardrobe at the right is one foot wide, and through the top rods are driven on which to hang skirts, trousers, etc. The upper left-hand compartment makes a fine hat-box. It is eighteen inches square, and as there are hinges on the bottom, I put on two chains, making a drop-leaf desk. If you do not care to reserve it for hats, it may be fitted with a few pigeon-holes and used exclusively for writing-materials. However, I use the lower small drawer for stationery, etc. The back is made of thin ceiling-lumber put on crosswise to brace it. G. M.

Combination Bureau, Wardrobe and Desk

To Mend Corset-Covers

Most every one will notice that the first place a chemise or corset-cover shows wear is under the arms. A fine thing to do is to take the nainsook or whatever material the garment is made of and cut out pieces the shape of a shield, sewing them on the under side.

Cranberry-Pudding

Make a batter with one half cupful of butter and one cupful of sugar creamed together, one cupful of milk added gradually and three cupfuls of flour in which have been sifted three teaspoonfuls of baking-powder and one fourth of a teaspoonful of salt. Lastly stir in two well-beaten eggs and two cupfuls of dry cranberries dredged with flour. Turn into a buttered mold and steam, covered closely, for two hours. Serve hot with a sweet lemon-sauce or with the syrup drained from preserved cherries and heated.

Swinging Flower-Rack

Every housewife who takes pride in her window-boxes will be glad to know of a plan for placing flowers at the windows without having to move the plants whenever the windows need cleaning. This device consists of shelves placed on opposite posts, A A, one of which is pivoted at the floor, E, and at the upper part of the sash. The support, B, is made of the same material as the posts, and strengthens the shorter side when the shelves are swung out from the window. This short side is made to rest on the window-sill. The shelves, C C, may be any convenient width and of light material. The bracket, D, has a hole in it for the pivot at upper end of the longer post. Paint or stain.

B. E. K.

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FARM AND FIRESIDE
Springfield, Ohio

Madison Square Patterns

Every real home woman loves an apron. And a rather dress-up apron to put on when the work is over is quite as important to her comfort as one just designed for work. The two aprons illustrated on this page are for afternoon wear. The apron made from a fringe towel has three big pockets and is a most convenient apron to have on when sewing, while the bib apron made of flowered dimity is equally as pretty.

Do you need a practical dress for everyday wear? If so, be sure and take a good look at the costume illustrated on this page in patterns No. 1457 and No. 1458. This little dress is up to date in style and yet easy to make. The fact that both the waist and skirt are made with a deep, pointed yoke gives the dress the effect of a costume, though it really consists of two separate garments. Stitching is the only trimming.

No. 1431—Towel Apron

Pattern cut in one size. Quantity of material required, one fringe towel 24 by 39 inches, nine crochet-rings and two and one half yards of ribbon for the belt

No. 1457—Shirt-Waist With Pointed Yoke

Pattern cut for 34, 36, 38, 40 and 42 inch bust measures. Material required for 38 inch bust, three yards of thirty-six-inch material, or two yards of forty-four-inch material

No. 1458—Plaited Skirt With Pointed Yoke

Pattern cut for 24, 26, 28, 30 and 32 inch waist measures. Material required for 28 inch waist, six and one half yards of thirty-six-inch material, or five yards of forty-four-inch material

No. 1430—Bib Apron

Pattern cut in one size. Quantity of material required, one and one half yards of thirty-inch material, with two and one half yards of insertion and six yards of embroidery

No. 1061—Wrapper With Round Yoke

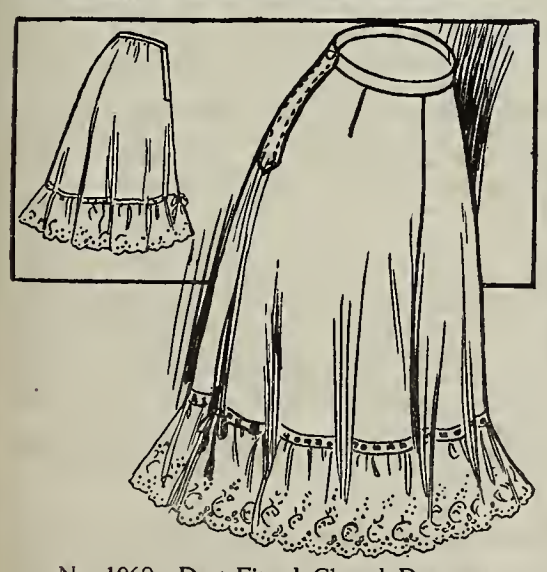
Pattern cut for 32, 34, 36 and 38 inch bust measures. Quantity of material required for medium size, or 36 inch bust, eight and three fourths yards of thirty-six-inch material, or seven yards of forty-four-inch material, with three fourths of a yard of velvet for trimming

No. 1354—Russian Suit With Vest

Pattern cut for 2, 4 and 6 year sizes.

No. 1326—Misses' Four-Gored Skirt With Inverted Plaits

Pattern cut for 12, 14 and 16 year sizes. Quantity of material required for medium size, or 14 years, three yards of thirty-six-inch material, or two and one half yards of forty-four-inch material



No. 1069—Dart-Fitted Closed Drawers

Pattern cut for 22, 24, 26 and 28 inch waist measures. Quantity of material required for medium size, or 26 inch waist, three and one fourth yards of twenty-two-inch material, or two and one fourth yards of thirty-six-inch material, with three and one half yards of lace for frills

Madison Square Patterns

For every design illustrated on this page, we will furnish a pattern for ten cents. Our big catalogue of Madison Square patterns will be found invaluable to the woman who makes her own clothes. We will send it to you if you inclose with your order ten cents in postage. Here is our latest liberal offer in regard to Madison Square patterns. This offer holds good up to January 31st. We will give one Madison Square pattern for only two yearly subscriptions to Farm and Fireside at regular price of thirty-five cents each. Your own subscription may be one of the two. We will send Farm and Fireside one year, new or renewal, and any one pattern for only forty cents. Send orders for patterns and for the pattern catalogue to the Pattern Department, Farm and Fireside, 11 East 24th Street, New York City.

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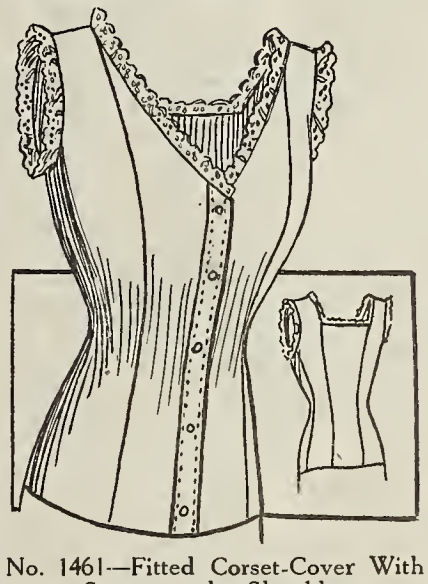
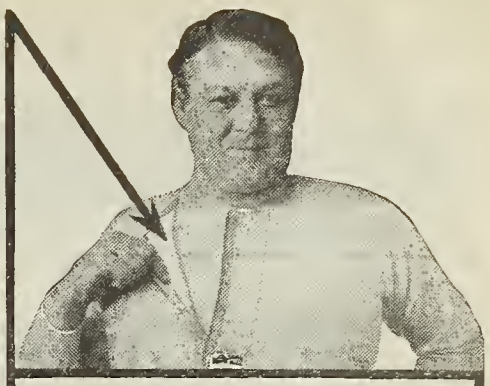


No. 1461—Fitted Corset-Cover With Seams to the Shoulder

Pattern cut for 34, 36, 38, 40, 42 and 44 inch bust measures. Quantity of material required for medium size, or 38 inch bust, one and three fourths yards of twenty-seven-inch material, or one and one fourth yards thirty-six-inch material



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OUR YOUNG FOLKS' DEPARTMENT

'Lizbeth's Message to Santa Claus

By Jean Wilde Clark

When 'Lizbeth learned that Christmas was only two days off, she 'most lost her breath from excitement.

She could hardly believe it—only two days! 'Lizbeth was a small girlie, and weeks and months and years were beyond her understanding. But days she could count.

'Lizbeth's heart was beating so fast she could hardly run to meet father in the hall when he came home.

"Yes, only two more days," said father, "and who do you think I saw down-town just now?"

"Not really, father, not Santa Claus?" 'Lizbeth could not believe her ears.

"Yes, Santa Claus!"

"Oh, where is he, father?" and 'Lizbeth danced up and down and around.

"On the avenue, in front of the stone church, and he's got his chimney and all his traps with him, fur coat, bells and everything." 'Lizbeth was so excited she could not eat her luncheon. Mother was telling of a letter from Uncle Jack that very morning; he was coming for Christmas. That would be jolly, but Uncle Jack was as far off as Christmas, and Santa Claus was only at the stone church.

'Lizbeth thought luncheon would never end. She was very quiet. At last father went back to the office, and mother upstairs to her sewing, and nursey to the kitchen for her lunch, and 'Lizbeth read a picture-book upside down. A very big plan was forming in 'Lizbeth's little mind. She was going to see Santa Claus.

'Lizbeth went to walk every afternoon with nursey, and 'Lizbeth was very sure nursey would not care to visit Santa Claus. Come to think about it, 'Lizbeth was almost sure nursey did not even believe in Santa Claus. Oh! what a dreadful thought!

'Lizbeth flew softly up-stairs. She slipped on her warm coat and big beaver hat. Then she caught up her tiny muff and hurried out. No one heard the front door click; no one knew she had gone.

Down the broad street sped 'Lizbeth. How big the world looked when one was all alone; how big and how very cold. At the corner a big automobile blocked the way, and 'Lizbeth waited with the crowd of passers-by on the curb.

One more block, and 'Lizbeth could see the stone church, and, yes, sure as I live—fur coat, white beard, red chimney and all—there stood Santa Claus. 'Lizbeth did not dare go across; suddenly she was very much afraid. To be face to face with Santa Claus; think how you would have felt!

'Lizbeth watched him. He stood first on one foot then on the other. He rubbed his hands together and slapped his arms around him for all the world like the milkman of a cold morning.

But look! two little girls were going up to Santa Claus. They were poor little girls. 'Lizbeth could see that. They had no warm coats nor furs nor mittens as she wore. Their faces were pinched and blue with cold, and they huddled close to each other to keep warm. What were they saying to Santa Claus? She wondered what in all the world they would like best for Christmas. She should ask, when her turn came, for a "wed sike par'sol with a wuffle." She wished she were nearer now, but she was across the street and awe of the dear old saint kept her back.

Then a strange thing happened. The larger of the children talking to Santa Claus carried an old splint basket, and now she drew out from it a big, flat bottle and handed it to Santa Claus. What could it mean? 'Lizbeth almost fell off the curb in her excitement. And Santa Claus drank what was in the bottle, handed it back to the little girl, and the two disappeared in the crowd. Then he took up his clapping of arms and jangling of bells, and then he began to cough, my, how he coughed. Santa Claus coughing? Who ever heard of such a thing? 'Lizbeth turned around, bewildered. Then her heart leaped. Right in front of her, still huddled close to keep warm, and hugging their numb hands under their thin arms, were the two ragged children who had given Santa Claus a drink. Now she would find out all about it. 'Lizbeth sped after the two, dodging through the crowd, and caught up with them before a toy-shop window. The ragged ones were close to the glass, peering in at the great display. A wonderful doll, dressed in pink satin and white furs, stood invitingly near, holding out kid-gloved hands.

"Oh, sis," 'Lizbeth heard the little one say, "it's there yet. I was most afraid she'd be gone. I've prayed every night for her, ain't you?"

"Yes," said the other, "I have, but what's the use, we can't have no such doll. Pop's cough's worse to-day, and there's the rent, and he don't get much at this job, and it's so cold. Come on," she pulled at the younger child's thin sleeve, shivering.

"Why didn't you ask Santa Claus for the doll?" 'Lizbeth demanded breathlessly. The two turned to her sharply. They did not speak. "Why didn't you?" 'Lizbeth came closer. "You were talking to him; he can give you anything you want, you know. You were nice and gave him that drink, so I'm sure he'd be d'lighted to please you." The oldest girl gave a hard laugh. "What you talking about?" she said. "That ain't Santa Claus, that's my father, we brought him some coffee. He's sick, but he wants to hold out for the pay. He ain't a regular, but the man that had the job wanted to get off for Christmas, so pop got into his clothes."

"But it is Santa Claus, my father said so, I guess you don't understand. If you want that doll you can have it." 'Lizbeth caught at the girls' hands. "Come on, I'll ask him for you if you're afraid."

"At the very top of 'Lizbeth's big Christmas-tree . . . hung the beautiful doll of the toy-shop window"

Bewildered, against their will, 'Lizbeth pulled the two after her. To the curb, to the street, across the street, dodging hansoms, on and on through the holiday crowd pressed 'Lizbeth, her goal the stone church and Santa Claus.

But what was the matter? Santa Claus was leaning weakly on his chimney. Then he began to slip down, and in a moment he was lying on the icy pavement, while people gathered quickly from all directions, and a big policeman hurried from a sheltered doorway.

"Oh," screamed 'Lizbeth, she was close beside him, "Santa Claus, don't die, please don't die." Then some one caught her up quickly, and before she could struggle, she found herself in Uncle Jack's big arms, and she was sobbing out on his shoulder her story of going to ask for a pink satin doll, of coffee in a bottle and two cold little girls, who would call poor sick Santa Claus "father." But somehow Uncle Jack understood. In a moment he had seen the two ragged sisters, now crying, and was pushing past the people to their side.

Then 'Lizbeth remembered that Uncle Jack was a doctor, and of course he would know what to do.

"Don't cry," she called. "Here's Uncle Jack, he will make Santa Claus all well, and then I'll ask him." But the poor children did not heed her. The largest one was sobbing out to the policeman about pop's cough, and the rent, and the cold, while kind hands lifted poor sick Santa Claus into the comfortable ambulance, which had come hurriedly up, ringing its big bell. Then Uncle Jack gathered the little crying girls into a carriage, 'Lizbeth still in his arms, and drove straight home.

Mother ran down the steps, bare-headed, when she saw them, and caught her baby in her arms, crying and laughing and sobbing that she had been almost crazy. Why had 'Lizbeth run away, and where had Uncle Jack found her? Then Uncle Jack told all he knew. Of the poor sick Santa Claus man who had pneumonia, and was to be cared for in the hospital till he was well, and of his two little motherless children, cold and hungry, who were now standing frightened in the doorway.

"You poor little tots," said mother, with a catch in her voice. "Come right to the fire, and, nursey, quick, here is work for you." She scrubbed and combed and bathed and brushed, and an hour later two very timid, very clean little girls sat down to big bowls of bread and milk, and were put away to bed in nursey's own comfortable room.

And 'Lizbeth, cuddled on Uncle Jack's knee for a good-night kiss, was saying for the twentieth time, "So it was not really Santa Claus, only one of his men."

And Uncle Jack explained that Santa Claus was much too busy before Christmas to come himself, but these men stood in his place, asking for money to buy Christmas dinners for the poor, who otherwise would go hungry on Christmas Day.

"But, Uncle Jack," 'Lizbeth's eyes were very large. "I can't ask Santa Claus now about that pink doll, the little girls wanted it so, and they have been praying every night."

Uncle Jack coughed. "You might pray, too," he said after a moment's thought.

'Lizbeth slipped down on the white fur rug before the warm fire, and folded her tiny hands on Uncle Jack's knee.

"Please, God," she said, "send the pink satin doll to the poor little girls, and please make the Santa Claus man well, and please make 'Lizbeth a good girl, amen."

And what do you s'pose? At the very top of 'Lizbeth's big Christmas-tree on Christmas morning, all pink satin and furs and yellow curls, hung the beautiful doll of the toy-shop window holding out her kid-gloved hands to the little girls. And three screams of delight went up when Uncle Jack, his eyes very shiny, and 'Lizbeth hugging him with all her might, reached down the doll and laid her with all her beauty in two pairs of trembling, outstretched little arms.

But that was not all. There was a "wed sike par'sol with a wuffle" and heaps of other things. The Santa Claus man got well, so he could drive Uncle Jack's horses and earn money for his little girls, and the little girls were fed and clothed and went to school, so it really turned out to be the most beautiful Christmas that 'Lizbeth ever had.

Cousin Sally's Christmas Letter

Dear Boys and Girls:—

A Merry Christmas to you, dear little friends! I hope your Christmas will be filled with a good measure of gladness and joy. I wish that I might send each one of you a holiday letter, but I fear it would take me nearly all the days on the calendar to write them. So I will have to send you my good wishes and Christmas greetings through good old Farm and Fireside. I'll be thinking of you to-day and wondering about your Christmas. Write and tell me what Santa Claus brought you and just how you spent Christmas Day. I suppose many of you will gather around the Christmas-tree in the evening and tell stories and jokes and have the jolliest sort of a time.

Have you ever wondered how the evergreen tree became associated with Christmas? There are many countries who claim the honor of the idea originating with them, but perhaps one of the prettiest stories about the Christmas-tree is an old German legend, which makes St. Winfrid the inventor of the idea. In the midst of a crowd of converts he hewed down the giant oak which had formerly been the object of their Druidic worship. The story runs thus:

"Then the sole wonder in Winfrid's life came to pass. For, as the bright blade circled above his head and the flakes of wood flew from the deepening gash in the body of the tree, a whirling wind passed over the forest. It gripped the oak from its foundations. Backward it fell like a tower, groaning as it split asunder in four pieces. But just behind it, and unharmed by the ruin, stood a young fir-tree, pointing a green spire toward the stars.

"Winfrid let the ax drop, and turned to speak to the people.

"'This little tree, a young child of the forest, shall be your holy tree to-night. It is the wood of peace, for your houses are built of the fir. It is the sign of an endless life, for its leaves are ever green. See how it points upward to heaven. Let this be called the tree of the Christ-child, gather about it, not in the wild-wood, but in your own homes; there it will shelter no deeds of blood, but loving gifts and rites of kindness.'"

Again wishing you a Merry Christmas and a Happy New Year, ever faithfully, Cousin Sally.

Prize-Winners in November 10th Contest

Edna Rogers, age fourteen, Springfield, Missouri; Olive Mangold, age fifteen, Carrollton, Pennsylvania; Edna Murray, age twelve, Essex, Illinois; Gladys L. Sopp, age twelve, Los Angeles, California; Vivian Greene, age thirteen, Farmington, Illinois; Mildred Lewis, age nine, Davenport, New York; Mona Sweetman, age fifteen, Camp Chase, Ohio; Edith Bowman, age fourteen, Hooper, Utah; Arthur Graefe, age sixteen, Harpersville, Virginia; Alice L. Metcalf, age eight, Weston, Michigan; Ruby L. Lashbrook, age fourteen, Bonner Springs, Kansas.

Susan's Christmas Surprise Party

By Hilda Richmond

"HERE'S a nice predicament," groaned the manager so dolefully that the three men in the office asked in unison if he were ill.

"Yes, I am," said Perkins shortly. "Here's a letter from the boss saying he's sending a girl to learn stenography or—let me see—no, she's learned it already, he says, and she must have a position. Hang it all! I suppose she's had thirteen night lessons in a dinky business college somewhere and calls herself a stenographer. Abbot, you'll have to take her under your wing."

"Heaven forbid!" said Tom Abbot solemnly. "Markham has sisters while I am only a lone bachelor. Let him give the fair stenographer a lift."

The new girl followed up the letter from the boss with surprising speed. She proved to be a pretty young woman of twenty with a very serious look on her face, and she timidly informed Mr. Perkins that she was M. J. Burke, as the letter set forth. The office force of the Nelson Pottery Works consisted of Mr. Perkins, the manager; Susan, otherwise Miss Laurens; Mrs. C., which was short for Mrs. Cadwallader; Mr. Markham; Mr. Abbot, and two other bookkeepers. Susan was a genial, middle-aged, sensible woman with hair streaked with gray who could have stopped working long ago, but she liked the place and hated housework, so she allowed her gentle sister to manage the home as she pleased, while she stuck to her type-writer and her good salary, and Mrs. C. was a widow about as old as Susan, who had to support her family by her office work. Men had come and gone in the office, but Mr. Perkins and Susan and Mrs. C. were fixtures, and no other woman had ever been taken on during the twenty years Perkins had reigned. The boss was Mr. Hezekiah Nelson, who seldom visited the works, but the real owner was the aged father of the boss.

"Mr. Markham will show you about the work, Miss Burke," explained Mr. Perkins. "Miss Burke, Mr. Markham!"

Miss Burke's knowledge of stenography proved to be vague, and her experience with type-writing misty, but Mr. Nelson said she was to stay and get a salary, so that settled it. They would have to endure her and fix up her mistakes as well as they could among them.

"Where are you boarding, Miss Burke?" asked Susan when the day's work was ended. "At Mrs. Lee's? That isn't far from my home and I want to call on you very soon." Mrs. C. also said a few kind words to the girl who was evidently very lonely, and even Abbot refrained from making disparaging remarks about her mistakes. Every one seemed to be of the opinion that the new girl should have a fair show.

"The old man's got a bad case, hasn't he?" said Abbot confidentially to Susan one beautiful autumn day, nodding to the corner where Richard was helping Miss Burke with her work. "Dick has lost his head completely."

That very afternoon as Mr. Markham walked home with Miss Burke, she confided the news to him that she was going to fit up a little flat or cottage, "just like Susan's," and showed him a piece of paper on which were rows and rows of figures to prove that she could stand the expense. "I have some furniture that belonged to mama," she said with enthusiasm, "and it has been stored for years. It can be cleaned up and will be better than new, for it is substantial and lovely. Mrs. C. knows of a lovely old lady who hasn't very much money and who will be glad to stay with me for the sake of a home. Every one is so kind to me."

"I don't like the plan a bit," said Richard impetuously. "I want you to have a home, but—"

There was no mistaking his meaning, and Miss Burke fairly trembled. For weeks she had known, or thought she had known that Richard loved her, and there was no doubt in her heart about her feeling for him. His lover-like words were cut short by the sudden appearance of Susan, who walked the rest of the way with them and outstayed Richard at the gate. However, he was sure another chance would come that very evening, and he walked home with the memory of the soft light in her eyes and the tremble of her ungloved hand as she tried to appear indifferent.

"Markham, I've made a great discovery," said Perkins in excited whispers when Richard reached the office early next morning. "Who do you think M. J. Burke is? She is no less a person than the owner of these works, or she will be very soon, for old Mr. Nelson is going to will them to her because she's his granddaughter. He got an idea she ought to have a practical knowledge of the business, so he sent her here to learn. I don't suppose she's been acting as a spy, and I don't care—we have nothing to conceal—but it was a mean trick to play on us. Don't tell the rest."

Richard Markham sat as if dazed and never said a word.

After that he was scrupulously polite to Miss Burke, but nothing more. "I'm not a fortune-hunter," he told himself savagely. "How could I ask a girl worth nearly a million to live on a share of my salary?"

Marjorie Burke went on with the preparations for her cottage, but all the light had gone out of her eyes and the spring out of her step. The handsome furniture arrived and was set in place, and the "lovely old lady" consented to act as chaperone and friend. Miss Burke still performed her work at the office as Mr. Markham had taught her, but Susan and Mrs. C. openly worried about her, she looked so drooping and pale. "We're going to have a surprise party for Miss Burke on Christmas Eve," whispered Susan around the office one evening after Marjorie had gone out. "We're going to give her a little shower of gifts. The poor child told me one day she had never had a real present in her life. Just think of that! Poor dear!" Most of this was for Richard's benefit, but he heard it unmoved. "Be sure to be there at seven sharp. If the rest of us are not all there act as if you dropped in for a call."

It would have looked odd to be absent from the tiny party, so on Christmas Eve Richard rang the bell at the little cottage door. Marjorie opened the door, and he saw that she had been crying. "I hope you are not ill," he said formally when they were seated.

"I am not ill," said Miss Burke. "Only I feel rather forlorn. Mrs. Rank is going to live with her daughter and I will have to give up my rooms unless I can find another lady to live with me."

"That is too bad," said Richard wondering where the others could be staying. "I am afraid it will spoil your Christmas. Why don't you hire a companion or get some servants to stay with you?"

"Servants?" said Miss Burke with a keen look. "On a salary of fifty dollars a month one cannot hire servants."

"No, but—" and then Richard caught himself. He had promised Perkins to keep the secret, and he had almost let it out to the most interested person.

"Is that the reason?" demanded Miss Burke with a keen glance at the young man's confused face, and then it was her turn to stop short.

"Yes, that is the reason," said Richard, taking the trembling hands in his. "Darling, you know I love you, but I will never ask you to marry me. Your friends would say—"

"Then I will ask you," said Miss Burke. "If my money stands in the way of my happiness I will get rid of it. I thought you loved me, Richard, but lately you have seemed so—so different and—"

The other guests arrived a little later, panting and out of breath, and they felt sure Marjorie was completely surprised. She talked and acted in a most astonishing manner, and insisted on slipping out to the dining-room to prepare a little lunch.

"Now is the time for our shower," whispered Susan who was running affairs. "We have our gifts in that big holly bell. Every one has put his present in but you, Dick. Hurry, Marjorie will suspect something."

But Richard did not get to put his gift in the big green bell sparkling with diamond-dust and glowing with red berries. Instead he offered to lead the unsuspecting hostess to just the right place, and then Susan was to pull the white ribbon that dangled down suspiciously. Everything went well, but just when Susan was about to pull the ribbon, Rev. Mr. Addison stepped from the dark reception hall, and before any one but three people knew what was going on, Richard was putting his gift on the bride's finger, and all the guests were completely surprised. Poor Susan forgot her duty entirely and sank speechless into a chair.

"Didn't I tell you it would be a good thing?" demanded Susan as Mr. Abbot sat down beside her. "I have always said every girl should have a home and some one to care for her."

"How about a man?" demanded Mr. Abbot abruptly.

"Well, a man needs a home, too," said Susan thoughtfully, "Dick has always had a good home, but it's been different with Marjorie."

"I wasn't thinking of Dick," said Mr. Abbot shortly. "I was thinking of myself. I never knew any one to sit down and worry about my lonely condition."

"Oh, you!" said Susan easily. "Well, you're different! You don't care for a home and things like other people."

"That's news to me. I have been thinking seriously for three months about asking a certain lady to share my modest fortunes."

"You! In love!" almost screamed Susan. "That is still more astonishing than the wedding this evening. I can't believe it."

"It's the solemn truth, Susan," said the bachelor. "Do you remember the day I told you I thought Dick was in love with Marjorie? Well, that very day my eyes were opened and I knew that I had been loving you unconsciously for years."

"Me!" Susan did not scream this time. Instead she sat bolt upright, and whispered the one word as if she thought Mr. Abbot had lost his wits.

"Yes, you, and I want to marry you right away," declared Mr. Abbot stoutly. "I'll get Mr. Addison to wait a few minutes and we can start right on this Christmas morning. I'm sorry I've had so little gumption this long time, but it's never too late to do better."

"No, dear," said Susan. "We won't be married to-night, for it's too late. Let's make it to-morrow afternoon."

The guests were astounded when Mr. Abbot told them the good news.

It was late when the last good-nights and good wishes were uttered, and then Mr. Abbot and Susan headed the procession for home. "Merry Christmas to all!" chuckled Mr. Perkins. "Susan, your surprise party was a big success!"

RESULTS OF FOOD

Health and Natural Conditions Come From Right Feeding.

Man, physically, should be like a perfectly regulated machine, each part working easily in its appropriate place. A slight derangement causes undue friction and wear, and frequently ruins the entire system.

A well-known educator of Boston found a way to keep the brain and the body in that harmonious co-operation which makes a joy of living.

"Two years ago," she writes, "being in a condition of nervous exhaustion, I resigned my position as teacher, which I had held for over 40 years. Since then the entire rest has, of course, been a benefit, but the use of Grape-Nuts has removed one great cause of illness in the past, namely, constipation, and its attendant evils.

"I generally make my entire breakfast on a raw egg beaten into four spoonfuls of Grape-Nuts, with a little hot milk or hot water added. I like it extremely, my food assimilates, and my bowels take care of themselves. I find my brain power and physical endurance much greater and I know that the use of the Grape-Nuts has contributed largely to this result.

"It is with feelings of gratitude that I write this testimonial, and trust it may be the means of aiding others in their search for health."

Look in pkgs. for the little book, "The Road to Wellville." "There's a Reason."

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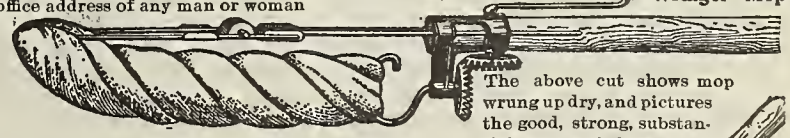

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selling this great invention—**The Easy-Wringer Mop**—the biggest money maker of the age. Think of it! **A Self-Wringing Mop.** No putting hands into the dirty water. No aching backs. No slopping against woodwork. No soiled clothes. No contracting deadly disease from touching hands to filth and germs that come from floor. Can use scalding water containing strong lye. **Two turns of crank wrings out every drop of water.** Makes housekeeping a pleasure—Makes the day happy. Simple, practical, reliable, it lasts for years. Every woman is interested—and buys. **No talking necessary—it sells itself.** Simply show it and take the order. **Could you imagine an easier, quicker, better way to make money than supplying this demand already created.**

We want more **agents, salesmen, managers,** to fill orders, appoint, supply control sub-agents, **150 per cent profit.** No investment required. **We own patents and give you exclusive territory, protection, co-operation, assistance. You can't fail,** because you **risk nothing. HUNDREDS ARE GETTING RICH.** Act quick. Write for your county today. **WE WANT A THOUSAND MEN AND WOMEN.**

Send no Money: Only your name and address on a postal card for information, offer and valuable booklet **FREE.** Tomorrow belongs to the one behind—**the opportunity is open TODAY.** Write your name and address clearly, giving name of county.

THE U. S. MOP COMPANY, 856 MAIN ST., LEIPSIC, OHIO.

The above cut shows mop wrung up dry, and pictures the good, strong, substantial material used thruout. When mop is raised from floor it automatically straightens out ready for wringing.

This smaller picture shows mop on floor. It spreads out and is held down to floor at all points.

Miss Selina Lue and the Soap-Box Babies

[CONTINUED FROM PAGE 18]

obligations and she would fulfil them to the letter, even if they did include serving the obnoxious barn-boarder in a menial capacity. "Eggs fried on both sides and smashed potatoes" sounded terrifying in the extreme, but Miss Cynthia's blood was up, and she both mentally and literally rolled up her sleeves and sailed in to win.

It was on the off side of twelve o'clock, so she decided that time was in her favor. She smothered Blossom with a kiss and attempted to deposit her in her box, but the young lady clung around her neck in a manner most beguiling. The two Flarities regarded her solemnly, as if taking measure of her capacity for guardianship, and Clemmie seemed to find comfort in chewing the corner of her gingham apron. Pattie resorted to sucking her thumb complacently and grabbed at her own pink toes as if she had designs on them in case of a famine.

"Blossom, dear, I must ask you to let me go and see to the smashing of those potatoes—smashing anything appeals to me right now," said Miss Cynthia. But Blossom clung the tighter. There was nothing for it but to take her into Miss Selina Lue's little cupboard of a kitchen, that also leaned to the grocery, and enthrone her on a corner of the table.

"Now," said Miss Cynthia to herself as she surveyed the field, "I think I would better fry the eggs first, as it will take some time to do it on both sides. Some people don't mind putting others to any amount of trouble. I am sure, under most circumstances, I would be satisfied with my eggs fried on one side—but two it shall be if Miss Selina Lue says so."

"Goo! Ah—goo—g-o-o—" answered Blossom from her perch.

"I thought you would think so, dear," Miss Cynthia answered her. "I don't doubt you would fry them for him on three sides if you could, wouldn't you?"

Blossom nodded delightedly with an air of perfect understanding.

"I thought so! Well, I am going to do my best, and then if everything is not right it is not my fault. Now, that is the fryer, I know, and I will let it get good and hot while I find the eggs. How many do you suppose the dear creature eats at a sitting, Blossom? A half dozen?"

Again Blossom's head bobbed cheerily. She hugely enjoyed being taken into the conversation, did the Blossom.

"Well, here's a half dozen and here goes! Dear me, I hope it's as easy to smash potatoes as it is eggs. I wonder if it is right for them to mix up so? Heavens, the things are sticking to the fryer! I'll just stir them around, for I suppose that's what Miss Selina Lue meant by both sides, to mix them up so they won't get so black. They seem perfectly hard now, so I am going to put them in the dish," and Miss Cynthia emptied out the charred mass on a plate and set it on the table.

"Of course, Blossom, I have known fried eggs all my life, but we don't have them, and I am not perfectly sure how they ought to look. These seem nice and brown, though those black streaks are not exactly artistic, are they?"

With reassuring eagerness Blossom reached for the dish.

"I'm glad you think so, dear, but you don't want that dinner; yours comes later. Now for 'smashing' the potatoes! When does the smashing come in, before they are cooked?" Miss Cynthia paused to think. "I don't suppose it makes much difference, and after they are cooked they will be so hot—I am going to do it now. Wasn't it lucky Miss Selina Lue had peeled them! Why, I never knew potatoes were so hard before they were cooked! No wonder the great, grand mogul likes his smashed. I like them smashed myself, but how am I going to smash them?"

Blossom gurgled interestedly.

"Thanks for the advice, Blossom. Yes, I am going to set the pan on the table and wash the hatchet nice and clean, and smash away." Miss Cynthia worked with a will and succeeded in quickly reducing the potatoes to a watery, lumpy mass. After a moment's hesitation she emptied them into the frying-pan to which clung fragments of burned eggs. Her delight was great when she remembered the salt and she poured in a double dose with exceeding liberality. Around and around she stirred the mass, which quickly burned to a hue to match the eggs and thus declared itself done.

"Blossom," she remarked earnestly, "why women make so much fuss over cooking I can't see. It is just too easy, and nothing but selfishness makes them not want to do such simple things for their families. I am going to put a plate and knife and fork here for him and tuck this ugly fryer out of sight. Then he can come and get his dinner whenever he chooses. And, Blossom, I don't know whether you and Miss Selina Lue ever do it, but I am going to put a spray of this petunia here on the table—and take the risk."

A series of plaintive little gurgles and a whimper or two through the door leading into the grocery reminded her of the soap-boxers, and she hastened to answer the summons.

Four solemn babies sat bolt upright and four pink mouths flew wide open. "Bless your darling hearts, it's time for din-din, and Miss Cynthia's a bad girl to get naughty man's dinner first! Here are the bowl and spoon right here, and she is going to hurry." But instead of hurrying, Miss Cynthia stood dumb. She had forgotten where Miss Selina Lue had said the oatmeal and milk were kept!

In a panic she began a hurried search and it took her just five minutes to exhaust the possible hiding-places of milk and oatmeal in the River Bluff Grocery. She even tipped up the vinegar-jug and turned on the molasses spigot. No milk and no oatmeal!

In the meantime the plaintive wails from the back of the store had developed into the roar of a hurricane which swelled by the instant, but never ebbed. The sight of the bowl and the spoon which Miss Cynthia had set on the stool before them was the red rag to their rage. The two Flarities had settled down steadily to the business of making an uproar, and as they screamed each kicked the foot of his box with maniacal strength. Clemmie wasted no force in any exercise save that of the vocal chords, and shrill and high she shrieked, each output more startling than the last. Pattie had the wisdom to seek a key and note all her own, and she gave out sepulchral groans and ghastly chokings by the minute. Only Blossom, in her box where Miss Cynthia had put her, was quiet and pale with terror. Her wide, frightened eyes added the finishing touch to Miss Cynthia's plight, and she sat down on the floor by her box and buried her head in the mite's small pink apron.

Then suddenly in the storm there came a calm, deep and breathless. Miss Cynthia looked up and, behold, relief stood on the threshold! In one hand Mr. Alan held a tin bucket full of the brown, sticky manna and in the other a jug of milk, both dripping from their immersion in the well. She sat as motionless as the babies; and if her mouth did not stretch open, no will of her own prevented it.

The mixing of the potation was the matter of a few seconds, and the feeding began without delay as the gray raven perched on the stool and ladled out dripping spoonfuls. Miss Cynthia was almost surprised that he failed to offer her some in her turn, but she sat on the floor and watched him with deepest gratitude.

"I couldn't find the dinner," she said in a small voice. "Do you think they will be ill?" As she spoke, she looked up at him with wide, trustful eyes that reminded him in expression of all the other five pairs fixed upon his.

"No, indeed, the little rascals! I have heard them do worse than that when Miss Selina Lue happened to be behind time with the quick-lunch." His big comforting voice revived her so that she rose to her feet.

"Miss Selina Lue has gone up to the lock with the Dobbses, and I stayed to take care of them for her. Your dinner is on the table." Her meekness was fast vanishing and her eyes drooped in a way they had that meant mischief.

"Oh, now, really you ought not to have troubled about me." Bother the girl; his ears were getting hot again and he was sure she was laughing at him, though why, he could not see.

"It really was no trouble," she answered, again sobered by her responsibilities. "Let me finish feeding the babies while you eat your dinner." Her voice was positively solicitous.

"Aren't you going to have some with me?" he asked politely.

"I don't think I am hungry now," she answered, intent on getting the spoon between Clemmie's uncertain lips. "I—I hope it will be all right. I never cooked that sort of dinner before, but I followed Miss Selina Lue's directions, so it must be the way you like it." Miss Cynthia was a lovely thing at all times, but in that timid, trustful mood, and in such a becomingly disheveled condition, as she bent over her charges she was—ravishing.

Mr. Kent grasped wildly at his vanishing composure and murmured idiotically, "If you cooked it, I am sure there won't be enough, no matter how much you prepared." He mentally kicked himself.

[CONTINUED ON PAGE 29]

The Farmers' Lobby

[CONTINUED FROM PAGE 17]

was put forth that there would presently be formed a holding company to control the entire series of properties, and that this holding company would probably start with one billion dollars capital!

Just twice the capital now outstanding! Which means just twice the present burden on the public to pay interest and dividends.

So you can easily calculate that the people who are going to double their interest and dividends by this particular merger, will be interested in having Congress do nothing to prevent that inflation by establishing federal control over capitalization. Who are these people?

Well, Winthrop Murray Crane, of Dalton, Massachusetts, senator from Massachusetts, is the most deeply interested single person, *because he is the largest individual holder of stock* in the American Telephone and Telegraph Company. He is also a member of the board of directors.

Puzzle: To find the name and address of one senator who will not be in favor of legislation to limit issues of securities. Can you work it?

Senator Crane has been from the day he entered the Senate the first lieutenant of Aldrich. Truth to say, it isn't very dignified service he has been permitted to do thus far. He is a sort of messenger-boy to the Rhode Islander, he fetches and carries, he "feels out" senators when Aldrich wants to learn whether he can carry one motion or beat another. He devises schemes by which senators may be able to maintain good "voting records" for home consumption, while at the same time, under the rose, helping along the Aldrich game.

Senator Crane is chairman of the immensely powerful committee on rules; the committee which makes up the senatorial order of business, determines what shall and shall not be given time, etc. In that position he is one of the most powerful men in public life.

Do you think his rules committee will be boosting very hard for legislation to control capitalization this winter?

But that isn't all. Before the rules committee gets mixed up with that legislation, it will first have to be referred to some other committee. Probably to interstate and foreign commerce. Turning to the Senate committee list, we see that Crane is a member of that committee, and so is Aldrich! Such a measure has about as much chance to get out of that committee as a half-pound of gumdrops would have of provisioning a successful polar expedition.

That doesn't look promising for legislation. But a good many people believe the proper treatment of the telephone and telegraph is to have the government own them and annex them to the post-office department, as is done in all enlightened countries. Suppose somebody introduces a bill to this purpose. It will go to the committee on post-offices and post-roads.

And looking over our committee list again, we observe that by a strange coincidence Senator Crane is also a member of that committee!

Crane couldn't prevent a bill being reported, of course, but, my word for it, both those committees are controlled by a hopeless majority of senators who are dead certain to vote with Crane in favor of doing nothing.

And that's why—part of the why—I don't think there will be legislation this session to control capitalization. There are as many other whys as there are senators who represent personal or corporate, rather than public, interests. And there are enough of them to make this session prove my prediction that little or nothing progressive will be accomplished.

* * *

The decision of a great circuit court of appeals that the Standard Oil Company is a conspiracy in restraint of trade and a violation of the anti-trust act caused a huge panic in certain quarters which thus far have not publicly betrayed their real concern. It was this way: The "interests" have for several years been diligently working up a public opinion that the anti-trust law was worthless; couldn't be enforced; never did "bust" a trust and never would, and, if enforceable, would do more harm than good. That decision was an awful setback to the theory that the law was utterly no good. It settled all consideration of "pulling the teeth" of the law. The public came out, looked over those teeth, noted their soundness and strength and fineness of edge, and sent word by grape-vine telegraph that if ary molar were touched, the toucher would "get his" at the next polling, and it would be a-plenty. And right there the project of "fixing up the law"—this is where you wink—so that it will "do the business more effectively"—this is where you administer a playful nudge in the ribs—fell dead.

D. Ward King

[CONTINUED FROM PAGE 6]

three and a half or four feet of iron on the ditch end of the front slab. For gravel roads it is best to put a piece of iron almost the full length of both slabs. The platform should not be nailed to the stakes, but should be nailed to cleats, which should be dropped between the stakes so that the platform will not move endwise.

It seems a small matter to speak of, but yet it is of very great importance: Cut cleats for this platform an inch shorter than the distance between the slabs. Make the platform of at least three boards and, in placing the outside boards, nail them one half inch from the ends of the cleats. The third board should be two inches narrower than the space left between the two boards already nailed, and it should be nailed into the center of this space, thus leaving four openings an inch wide running the full length of the platform. These openings permit the loose earth, which will come in sometimes over the top of the front slab, to sift through. Without these openings the platform is sure to accumulate a load of loose dirt. It is quite a lift to get this load off, and it makes a bad bump in the road.

How to Hitch On

I find that a trace-chain affords the most convenient mode of adjustment—about a trace-chain and a half is the right length for an ordinary drag. The trace-chain should be lapped around the stake that is furthest from the ditch end of the drag, brought over the slab, carried to the ditch end and placed through the hole bored in the center of the slab within two or three inches of its end. An old bolt may be dropped into one of the links to hold it there. This is the cheapest method of attachment and it is the most convenient because by slipping the chain back and forth and changing the place of the bolt in the links a longer or shorter hitch may be obtained.

The distance that the doubletree is attached from the drag has much to do with the amount of "bite" that is given the drag. If the doubletree is a considerable distance from the drag, the latter will gather and move more dirt.

The beginner should fasten the clevis for his two-horse evener at such a point on the chain as will make the drag follow the team at an angle of forty-five degrees when it is not loaded. He can, by shifting his weight on the drag, make it do a great many different things. The point at which he hitches, in combination with the place he stands on the drag, governs the slant of the drag. One may, by sharpening two feet of the ditch end of the steel enforcement and by hitching to it properly and standing at the extreme ditch end, make the drag throw a furrow like a twelve-inch plow. The steel ought to stand only half an inch below the edge of the slab at the ditch end of the drag and at its other end should come up flush with the slab.

Whittlings

A yeller farmer is one who yells at his horses.

Many trusts are bad, but the worst one is trust to luck.

No one ever came to sit under his own vine and fig-tree by sitting in the shade.

Showing folks their shortcomings is not considered by them as a longcoming of yours.

The man who is mean to his horses can never be a good neighbor, for charity begins at home.

The farmer who is forever driven by his work ought to kick out of the harness and put the driver in the tugs.

The long days of summer for cultivating the fields; the long evenings of winter for cultivating the mind and heart.

Too much yellow corn for the hens never produces the golden egg; it is too high living for the working hen and makes fat and bad liver.

Did you happen to have a summer boarder who skipped his board-bill? He belongs in the same category as the cow that does not pay for her keep.

As to the automobile, we are not so sure, but concerning the flying-machine, it is safe to prophesy that it will never be of service in harvesting the corn crop.

When you think labor is a curse, take a day off and go to town and watch what a miserable time both the retired and the ever tired folks have keeping themselves comfortable.

When the blandishments of the smooth promoter of speculative stocks are about to overcome your good judgment, go out and get inspiration from the mule; be stubborn and somewhat kickish.

M. G. Rambo.

A Little Nonsense

Getting a Renewal

LITTLE Dorothy was playing "house" with her small friend Elizabeth, when suddenly she said, "I guess I'll haf to go home."

"What for?" asked Betty with a good deal of concern.

"To ast my mama if I can tum back again," answered Dorothy.

HILDA E. SPONG.

If One But Knew

PASSENGER (as the ship is sinking)—"Captain, is there no hope—no hope whatever?"

CAPTAIN—"None at all, my man; no hope at all."

PASSENGER—"Hang my luck! And I wouldn't eat any cucumbers for dinner because I was afraid of indigestion!"—Leslie's Weekly.

Unnatural History

TEACHER was telling her class little stories in natural history, and she asked if any one could tell her what a ground-hog was. Up went a little hand, waving frantically.

"Well, Carl, you may tell us what a ground-hog is."

"Please, ma'am, it's sausage."—Judge.

A Hint for Mr. Roosevelt
Grappling for bighorn in the Rockies

Social Standing

"HIS brother is in a very shady business."

"What's that?"

"Awnings."—Princeton Tiger.

The Man of the Hour

LITTLE Charles was sent to Miss R.'s to return a basket. He was received very cordially and invited to come "sometime and stay to dinner." "Thank you," said Charles very solemnly, "I will; I'll stay to-day."—The Delineator.

Not Entirely Useless

THE young kindergarten teacher was trying to impress upon her wee charges the value of having the full number of fingers bestowed upon them by good Mother Nature. "Just turn in all your fingers but one and play that it is the only one you have. Now what could any of you do with only one finger?" True to her expectations all looked down at their lone digit in a panic of helplessness. But Mickey Finn was not troubled for long. As he pondered the subject, a great possibility dawned upon him. "Shure an' Oi cud sthick ut in th' jam an' git soom an' nivver be troubled wit' th' rist av thim."—The Delineator.

Proved by the Proprietor

STRANGER (in a strange restaurant)—"Say, waiter, I can't eat this stuff. Take it back and bring me something decent."

WAITER—"Sorry, but that's the best we can do."

STRANGER—"It is, eh? Well, I'll show you. Where's the proprietor?"

WAITER—"Gone out to lunch."—Lippincott's Magazine.

Fine Display of Heroism

A NEIGHBOR of ours, a portly gentleman, has been guiltless of any strenuous acts these many years. Recently his house caught fire. Volumes of smoke rolled in from the kitchen. Catching up his walking-stick and clapping his hat firmly on his head he started with firm steps for the front door. As he went through the hall he shouted lustily:

"Girls, girls! Fire! Save the piano!"

What's a Gentleman?

AN EXACT definition of a gentleman has been tried many times, never perhaps with entirely satisfactory results. Little Sadie had never heard of any of the definitions, but she managed to throw a gleam of light on the subject, albeit one touched with unconscious cynicism. The word was in the spelling lesson, and I said:

"Sadie, what is a gentleman?"

"Please, ma'am," she answered, "a gentleman's a man you don't know very well."

Miss Selina Lue and the Soap-Box Babies

[CONTINUED FROM PAGE 28]

Where were the things that ought to have sprung to his brain to match the girl? He went into the kitchen and sat down. The very prospect of the dinner prepared by those white hands was going to his head; he felt safer with the table between them. He sat, however, where he could feast his eyes and the inner man at the same time.

It was well that he approached his dinner in a mood of distraction, for it was with difficulty that he restrained an exclamation at the first mouthful of eggs. But across the bobbing heads of the oatmeal-milk diners Miss Cynthia raised trustful, proud eyes to his.

"Is it good?" she asked with bewildering solicitude.

"Good? Watch me!" and there with those eyes fastened on him in shining delight, he swallowed all of the six incinerated eggs and devoured in gulps a panful of half-raw, stone-cold, nauseating potatoes.

Half-way through the dose he paused. Should he leave any for her to agonize over, or should he assume a reputation for abnormality of appetite? Better anything than that she should ever find out the truth, and in a rush he finished the job. If, by that time, she had not been standing directly across the table, he would have scraped the dishes, but her nearness confused him, and he let her set aside a teaspoonful of potatoes and a chip of egg.

She was beaming with satisfaction, and at his hastily-framed apologies for having cleared the table, she answered cheerily:

"Don't say a word about leaving me any. I am too hot to eat for hours. Those blessed babies are asleep already. Could they have fainted from exhaustion?"

"I assure you they are safe, and for at least two hours," he laughed, as he rose and stepped to the door. Lighting a cigar, he lingered tentatively, hoping for some sign of invitation to remain. The petunia drooped from his buttonhole.

Then she raised her eyes to his and said sweetly and directly, with gratitude tingeing every accent: "Thank you for helping me out with them. You—you won't be far if they wake up and get beyond me?"

Those eyes and that curly mouth! Mr. Alan only really "came to," as Miss Selina Lue would have put it, when seated by her side later on the steps. In fact, he lived through an hour or more of partial eclipse of mind; and when the four-o'clock boat-whistle sounded to call him to the wharf to get a package brought down to him from the lock, he felt as if he had been in a dream, a beautiful dream, not such as comes usually at the bidding of a digestion impaired by lobster *á la Newberg* or eggs—fried.

As for Miss Cynthia, some evil fate or perhaps a sleepy chirp from Clemmie, the roarer, led her to the back regions of the grocery, and while there she idly tasted that spoonful of potato which had been left, with misgivings. A shred of egg followed, and gone was all her complacency, the fruit of Mr. Alan's self-sacrifice.

How—how would she ever face him again after having literally forced such an awful thing upon him! Her humiliation was complete. Her one thought was a hope that she would never lay eyes on him again.

"Well, well, Miss Cynthie, honey, did you ever see such a day for happenings as this has been to us all?" And Miss Selina Lue stood at the door beaming with delight.

[TO BE CONTINUED]

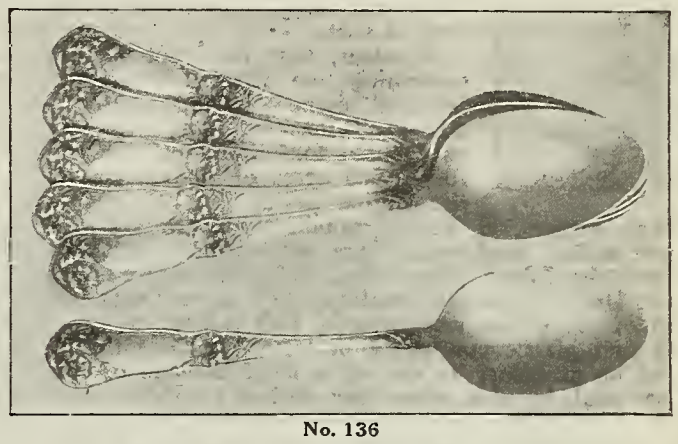
Special Premiums
Easily Earned

Farm and Fireside gives these handsome articles to its readers without cost for showing Farm and Fireside to their friends. Your neighbors and friends will be glad to take Farm and Fireside. They will want it. All you have to do is to send in their subscriptions. A word to a few friends will secure some of these handsome premiums for you without costing you one cent.

Five Great Offers

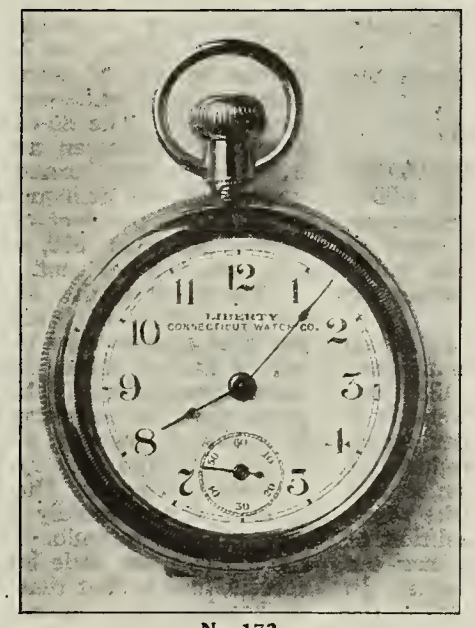
Teaspoons

THESE Teaspoons are made by the Oneida Community, and are guaranteed for ten years. The Wild-Wood pattern is elegant and chaste, and enhances the value of this silver manifold. These spoons are heavy and sightly, and have all the richness of the solid-silver article.



No. 136

Send us only five subscriptions to Farm and Fireside and we will send you, post-paid, ½ dozen of these Heavy Silver Teaspoons.



No. 173

The Popular Watch

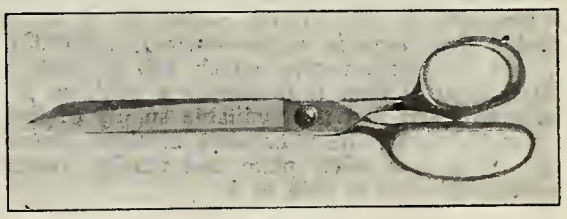
OUR Popular Watch has been making friends for us for several years. In that time we have sent out thousands of these watches, and the satisfaction with this article has been so general that we offer it again this season. This watch is strong, well made, and sightly, and is guaranteed for one year. Our boys have always been much interested in this watch, and for their use we know of none better. But we have also distributed thousands of these watches among the men, and the satisfaction has been universal.

Send us five subscriptions to Farm and Fireside and we will send you post-paid, this Guaranteed Nickel Watch.

NOTE: Our Ladies' Watch has been one of our most popular premiums. It is smaller and lighter than the men's watch. It can be worn from a chatelaine. **We will send it for ten subscriptions to Farm and Fireside.**

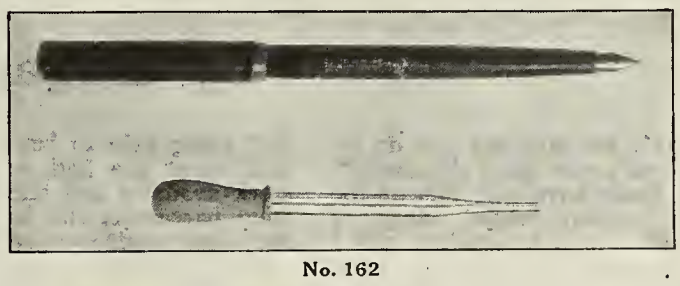
8-Inch Shears

IT IS strange, but true, that nine out of ten homes do not possess a pair of shears that cut. This is your opportunity to get a good pair of 8-Inch Shears free. Throw away the old hackers and send for these shears to-day.



No. 125

Send us two subscriptions to Farm and Fireside and we will send you, post-paid, a handsome pair of these Cast-Steel Shears.



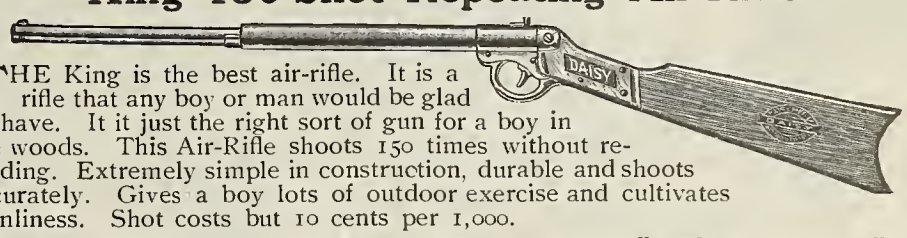
No. 162

Fountain-Pen

THIS Fountain-Pen is made by the largest manufacturer of fountain-pens in the country, and is guaranteed reliable in every respect. It has a gold pen-point and the barrel is appropriately decorated.

Send us only three subscriptions to Farm and Fireside and we will send you this Fountain-Pen complete in a case with a filler, post-paid.

King 150-Shot Repeating Air-Rifle



THE King is the best air-rifle. It is a rifle that any boy or man would be glad to have. It it just the right sort of gun for a boy in the woods. This Air-Rifle shoots 150 times without reloading. Extremely simple in construction, durable and shoots accurately. Gives a boy lots of outdoor exercise and cultivates manliness. Shot costs but 10 cents per 1,000.

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Each one-year subscription at 35 cents counts as **one** subscription toward a premium. Each two-year subscription at 50 cents counts as **one** subscription toward a premium. A four-year subscription counts as **two** toward a premium. Renewal subscriptions will count the same as new subscriptions. Your own subscription or your own renewal will count as one subscription toward a premium.

Send money any way it is convenient—even dollars in bills—odd change in stamps. A postal order is safest. Make up your mind to get one of these fine premiums—then start after it to-day. Send all orders to

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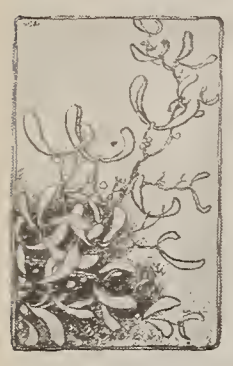
The Fall of American Monarchs

By Robert Frederick Worden



THE United States has 194,500,000 acres of national forest lands. And that is a pretty good-sized "wood-lot" when you come to think of it. Big enough for a very large army of "Babes in the Wood" to get lost in—and stay lost, at that.

However, that does not include something like 550,000,000 of timber-land owned by private capital. And that is enough to give us pause for thought: Nearly 700,000,000 acres of timber-land in the United States.

That means, in round numbers, about 1,000,000 square miles. And, since there are, exclusive of Alaska and the Island possessions, 3,026,789 square miles in the United States, it would make it appear that one third of the Union was covered with timber.

At first glance you might probably conclude that it would be necessary to cut off a large acreage of this timber-land to give room for farms to raise foodstuffs for the people of the country. But by the time you have learned something of the status of the lumber situation in these United States, you will know that it is imperatively necessary to make enormous yearly plantings to meet the demands on the forest for the future. Every story, as you know, has two sides to it; two points of view—and even figures can be made to tell a story.

Our Demands Upon the National Forests

Each year will now amount to about 50,000,000,000 feet of lumber, 160,000,000 railroad cross-ties, 4,000,000 cords of pulp-wood for paper, besides enormous quantities of other forms of forest products, such as firewood, fence-posts, telegraph and telephone poles, heavy building and mine timbers, as well as timber for many other purposes.

And here is the story that the figures tell, as shown by the government statistics: The per capita consumption of lumber in the United States in 1850 was two hundred and fifteen board feet; at present it is nearly, if not quite, five hundred board feet per capita. And trees are being cut, not planted. To produce the present demand for lumber would require an annual growth of over thirty cubic feet per acre for the whole of the 700,000,000 acres. In the present condition of the forests it is estimated that there is less than ten cubic feet of growth per acre for the entire area. In other words, the present cut of one year takes the growth of three years to supply it. It has been difficult to get a close estimate of the amount of timber now available in the United States, but it is roughly estimated that there is, approximately, 1,500,000,000,000 feet. At the present rate, which will increase yearly, of 20,000,000,000 feet, it is simply a problem in short division to learn that the available supply of timber in this country would be exhausted in about seventy-five years. That is a fairly plain and readily understandable story—the other side of it.

The census statistics show that between 1880 and 1905 there was a total cut of over 700,000,000,000 feet of timber, or a total consumption in twenty-five years, amounting to nearly half the amount estimated as now standing. These are astonishing figures; it is a story full of food for thought—and then action. Just consider for one moment that the amount of timber cut during these twenty-five years would make a solid floor one inch thick that would cover 25,000 square miles or 16,000,000 acres, or, to better realize it, would cover the states of Massachusetts, Connecticut, Vermont, Rhode Island and Delaware.

Is a Timber Famine the Outlook?

The Pilgrims began to cut timber after they landed at Plymouth Rock, and since then their children have cut their way Westward and Southward until now they have reached the Pacific Coast and the Gulf of Mexico, attacking one forest region after another until they have made our forests a matter of great national concern. But what have they planted meanwhile to replace the supply? That is a story that must eventually be written, and it were well to write it before the oil in the lamp burns too low, else this country will face a timber famine within a few generations that it will take centuries of judicious management and tremendous labors and billions in money to overcome.

The report of the forester says that with the exception of Maine, the New England states are cutting mostly second or third growth timber. Their box-factories take white-pine saplings down to six inches in diameter. The so-called "inexhaustible" white-pine forests of Michigan are gone, and millions of acres of cut-over and burned-over lands in the state have gone upon the delinquent-tax list. Michigan supplied twenty-three per cent of the lumber production of the United States in 1880, and in the year 1907 it supplied less than five per cent.

This report further shows that the value of the lumber production of Michigan since 1849 has been fifty per cent greater than the output of gold in California, and it has all taken place without a thought for the future generations. The cream of our hard woods is gone, and it is becoming more and more difficult to get in sufficient quantity the high grades of oak, yellow poplar, ash and hickory that our great manufacturing industries require. The South's once great supply of yellow pine is rapidly giving way before the ax and saw, fire and tornado. Half a generation more will, in most places, see little but remains left of the Southern forests, and in that time the Pacific Coast supplies will be heavily drawn upon.

Primarily, ours is a wood-using civilization. Despite the introduction of substitutes for wood, in the form of stone, cement, concrete and steel, our consumption of timber has increased from the earliest days up to the present time. The prices of forest products have risen more rapidly than those of other commodities. The quoted prices of the leading kinds of lumber on the New York market have risen twice as much in the last ten years as the average increase in all commodities. As is pointed out by the bureau giving these statistics, this indicates that the supply of timber is not keeping pace with the demand.

What the United States Forester Reports

In a letter Gifford Pinchot says: "I would call your attention to the conservation of our forests. We are now cutting our forests three times faster than they are growing, while much large timber and young growth are yearly destroyed by fire. As a nation, we have used wood wastefully and extravagantly, and the only way we can get the timber that we shall need for the future is to keep all our forest-land constantly growing trees, and the longer we delay action, the greater will be the pinch of a timber famine later on. One fifth of our remaining timber is in public forests, and on these forests the nation and the states are practising forestry. Four fifths of our timber is privately owned, and it is being cut almost exclusively for present profit without regard for the future. The problem of providing a timber supply cannot be solved by the national government alone, by the states alone, nor by individuals alone; all must work together."

And that is the key-note of the whole situation. The restoration of the national forests can only be accomplished by united effort, and the sooner the efforts are united, the less millions of dollars it will cost to secure timely results.

The Forethought of Railroad Managers for the Future

The railroads are among the largest consumers of wood, and as railroads are managed on a business basis they have been the first among the individual or private consumers to arrange for a future supply for the constantly-increasing demands. A number of the leading roads already have large tracts of growing timber from plantings, and these are increased each year. The two leading railroad men of the country have lately decided to plant both sides of their right of way along the entire line of their tracks with trees suitable for making railroad cross-ties, and, aside from giving their passengers the pleasing experience of traveling through long lines of shady groves, this will largely, if not altogether, solve the problem for future supplies of cross-ties for their great trunk lines.

In time, no doubt, most of the other roads will carry out the same scheme, not as a matter of following a precedent or for what there may be artistic in landscape effects, but simply as a necessary step toward the economical operation of their tracks.

Individuals have not been slow to see the opportunity offered in growing quick-maturing woods for cross-ties and other purposes, and large tracts are being planted in nearly all timber-growing sections to meet a demand in the future that will net them a return many times greater than the small investment necessary. Even small tracts of land planted now to rapid-growing woods will give to the next generation a heritage greater than would the largest and best tilled farm. It does not require a second Mulberry Sellers to see that there are millions in it.

Turning Defeat Into Victory

By Edgar L. Vincent

"I DON'T see how she can do it! Doesn't seem as if she could!"

Many have said this of the farmer woman whose story is told here. It is a wonder; and I feel sure every one who is facing problems like this may well take heart and go ahead, even if not in just the same way.

She had a nice home. Forget the rest—the heartache, the doubts and the fears, the uncertain looking into the future and the wondering why it must be—which came after she had been stripped of husband, father-in-law, two lovely little girls and a boy of more than ordinary promise. All we need to think of is the condition which confronted this woman at that trying time.

She was ten miles from market. All she had after the wreck was a little place of sixty acres, not very well equipped for business.

"You will have to give it up, won't you? was the question which came to her from her friends. It was the thing most women who had been left in that situation would have done.

"I Am Not Going to Give Up!"

This is the answer she made to her friends. After all, it was her home, and she said she did not want to live anywhere else.

"But how can you stay? What will you do? There is no one to do the work. You had better close up the house and go back to your father's."

How the woman answered these questions is now a story that is known to all who have watched her course through these years. Never very strong and now troubled with a bronchial affection, it seemed like an impossibility that she could have done what she has.

The first thing was to get some good cows on the farm. This she has done by the process of selection. Not being able to buy thoroughbred cows, she began with what she had, and by breeding from the best stock available and selecting calves of the most promising parentage, she has gathered about her some of the most productive cows of the neighborhood.

Now, perhaps, it will be said here, "She could not possibly have done this herself. She must have had it done for her. How could she attend to such things herself?" But whoever says this is mistaken. This woman has done it herself. She has picked out the calves when born. She has with her own hands taken those calves when they could scarcely stand on their uncertain, wobbly feet, warmed them with cloths when the weather has been cold, taught them to eat their first ration from the bucket and nursed them up through to cowhood. She has milked the mother cows herself and taken care of them, feeding them, getting the hay down from the mow alone; with her skirts tucked up she has done a man's work in the stables and actually attended to all that had to be done about the barns.

How She Carried on the Farm Work

Then this woman of the heroic heart took the milk down to the house and set it in the old-fashioned way in open pans and turned it into butter that was fit for a queen to eat. She used the large pans, as she likes the shining rows of pans and believes she gets as much butter from this plan as by any she might adopt. She skims the milk herself and ripens the cream. Of late years she has been making much of her pigs and poultry. These take the surplus sour milk and buttermilk and have proven a source of considerable profit. When she first took up the work, she kept some fine sheep; but dogs troubled her flock so much that she was compelled to let them go. Little by little she is enlarging the poultry business and the time may come when she may drop off the cows and enter the poultry business with more earnest purpose.

Some of the most particular people in a city of forty or fifty thousand are eating that butter every year and paying her the top price for it. Here is one place where she feels that she must let some one else come to her relief. After the butter has been made and packed in jars, she engages a man to deliver it for her. It is nearly all contracted by the year. Some are so fearful that they may lose their chance to get it that they say in the fall, "Now I want you to be sure and furnish me the butter I wish next season. You will remember, won't you?"

A Good Example of Courage and Pluck

Now, what if some one should say, "Oh, well, she is a strong, man-like woman. Of course she could not be very refined or cultured, or she would never think of doing these things." You who sit in your parlors, with all you need to make you happy around you, plenty of money and all that heart can wish, stop and listen. I doubt if you could hold your own in a conversation upon the current events of the day with this queen of the farm. The best papers, daily, weekly and monthly, come to her home. She does not feel that everything is right unless she has found time before she goes to bed to sit down and see what has been going on in the world outside. The telephone gives her communication with the countryside in every direction. A choice circle of friends who know her worth keep in touch with her and are glad to be reckoned worthy of that honor. If a horse or a cow or any other animal is sick, she knows what to do for it. Many are the calls over the line for advice on these subjects. She is posted on the markets as to the price of all farm products in which she is particularly interested. She markets her pork and sells her eggs when they will sell to the best advantage.

And there she is. Shut in? Not at all. In need of pity? Far from it. She is worthy of the highest admiration and she gets it from all who know her. With rare skill she directs the work out on the farm which she does not do herself. She keeps her accounts very carefully and is not satisfied if there be not a margin on the right side.

The Danger Points of Life

THE way of life is straight. It does not wind about. It does not make a zigzag path. Our experience in passing through the world is variable. To-day we have joy, to-morrow sorrow. Now the road runs through sunshine, again it takes us into storms. We pass through a thousand vicissitudes every year—health, sickness, pleasure, pain, ease, hardness, prosperity, adversity, gain, loss; but all the while the path of duty is direct, straight as an arrow's flight—it is without deviation. Yet in every line there are points at which it is specially easy to depart.

The first leaving of home is a time of danger. Home is a warm sanctuary of love. Especially is a true Christian home a place of sacred fellowship. The day when a girl or a boy goes out from the home door is always a time of testing. The life of the old home begins to seem narrow to some when they are out in a new environment and look back upon it. It is laughed at and represented as not up-to-date. Its habits of prayer, for example, are sneered at. Many young people find a serious testing waiting for them the first night in the boarding-school or dormitory, when the retiring-hour comes. Will they keep up the old home habit of kneeling by the bedside in prayer? Many battles are fought at that hour—many are fought, how many sadly lost!

Marriage is a time of danger. It ought to be the gate into a life of ideal beauty. Nothing good that has been learned in the years before should be lost when two young people leave their old homes and enter a home of their own. It is told of a Christian girl, recently married, that the first evening the young couple were in their own house, when they were sitting down to their first meal, the wife quietly said, "In my old home we never began a meal without first either bowing our heads and saying grace, or having a silent grace." So the two reverently bent their heads and sought God's blessing on their first meal. That is the way it always should be when two Christian young people begin their life together.

Sometimes prosperity proves to be a point of disaster to a life. The man who was faithful to God in the days of bare and pinched living, when there was no luxury, and sometimes was want, sometimes forgets God and turns away from the divine commandments when money increases and life grows sumptuous. Sometimes, too, adversity brings deflection. Sickness has ofttimes left one less prayerful than he was before, and with a life less beautiful. One said the other day in talking with a friend, "I have given up God." The friend said, "You have not given up prayer? Do you not pray any more?" "No," the person replied, "I used to be an earnest Christian, but five years ago I had a great disappointment, a crushing sorrow. While it was imminent, I prayed God most earnestly to save me from the calamity. He did not do it, and I have never believed in Him nor prayer since. I do not think God cares."

There is not a day which does not bring some such opportunity or occasion of turning aside. Business is right, if it be a right business, but continually men are tempted to depart from the right way in business. Pleasure is right. Our Master wants us to enjoy ourselves; but there are good people who are led aside, away from God, by pleasure, perhaps by its excess, perhaps by its charm, its enamoring. God is driven out of many hearts by amusements which perhaps are altogether harmless in themselves.

What in all life is more sacred than friendship? Of course, friendships are sometimes formed with unworthy people, and these lead away from God. But there are also pure, true and worthy friendships which may become the means of turning one away from God. It should not be so. A holy friendship ought to bring us closer to Christ. Yet sometimes a friendship becomes so intense, so absorbing, so satisfying, that it leads to the forgetting of God.

The safety of Christian life depends on avoiding the first steps away from God. To make this course really effective, we must take it in a positive way. Instead of being satisfied with not growing less beautiful in Christian life, we should seek to make ever a progress toward higher and better things. We can always live better than we have yet done. We can make to-morrow better than to-day. Not one of us has reached the possibilities of our lives in attainment and achievement. We have capacities for obedience, for service, for beautiful living, for usefulness, which lie undeveloped in us. Instead of letting ourselves slacken in the doing of our duty, we should set ourselves ever a higher mark, and every day add a line to the quality of our life and the worthiness of our character. There is a little prayer in an old psalm which would lift us ever upward—"Lead me in the way everlasting." The way everlasting leads ever toward God.—The Sunday-School Times.

A Christmas Prayer

By the Late Edward Everett Hale

FATHER of Love, Father of Life, Our Father who art here, we thank Thee for everything—For the Glory and Beauty and Wonder of the World; For the Glory of Springtime; For the Glory of Summer; For the Glory of Autumn; For the Glory now of Winter. Bless the Lord, oh, my Soul, who crowneth the Year with Thy Goodness. This is the Day the Lord has made, we will rejoice and be glad in it. Blessings and Praise that we know Our Father, and that He is here. Bless the Lord, oh, my Soul, who crowneth Thee with Loving Kindness and Tender Mercies. Bless the Lord, oh, my Soul, and forget not all His Benefits. On this Christmas Day we bless Thee. For Thy Son Well Beloved, Who saves us from our Sins and gives us Life more abundantly, (He is our Master and all we are Brethren) we praise Thee, we bless Thee, we thank Thee, for Peace on Earth and Good Will among Men.

And our Christmas Prayer is, that we all may be one, that we may be made perfect in One. Hear us and bless us in our Christmas Prayer.

How Good is Your Best?

EVERY man and woman in this world must fix his or her own standard of goodness. It cannot be the same for any two people, because of the varying conditions, differences in birth, education, etc. But that standard should be as high as possible. Now, the question is, just how good is your best? Is it as good as you can make it or are there weak places that might be strengthened and gaps that might be filled to advanatge?

To be one's best! Think what it means. It is not the comfortable feeling that one has when the day's work has gone pleasantly, when the baking turned out well and the children behaved almost as angels, when the world seemed a very good place, indeed. No, it is not a purry feeling of self-satisfaction that places one at one's best. Very likely if things went "contrary" the next day, forgotten would be that serene poise that seemed to place you for the moment far above all the world's worries. One's best should be something lasting, enduring and above all dependable. Something that will stand by you and that you may depend on; not a will-o'-the-wisp that is gone at the first breath of misfortune.

Most people know themselves far too little. I could name dozens who for a certainty have never realized that they have a best or a worst side to their characters. They are what they are and have been content to let it go at that, and thought no more about it.

Make the most of every faculty that is in you. Realize the force that you have and make it count. Use your eye for seeing the beauty of God's wonderful world; your ears for hearing His messages; your tongue for speaking cheer and comfort and strength to the weaker soldiers in His army, and your hands for assisting the unfortunates of life. Then all will be well with you and you may be sure that your best is very good indeed.

B. V. A.

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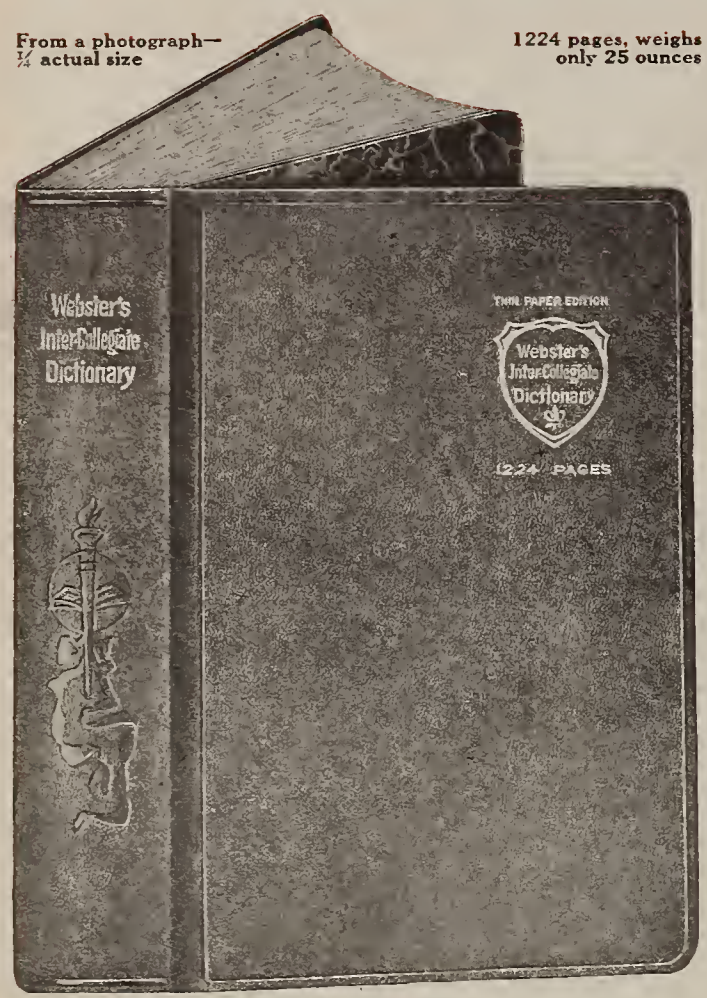

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bioscope	**graft**	**skyscraper**
bridge (*game*)	**limousine**	**soccer** (*game*)
camorra	**marconigram**	**suffragette**
chassis	**motorboat**	**taxicab**
chauffeur	**motorcycle**	**taximeter**
cinematograph	**pasteurize**	**wireless**

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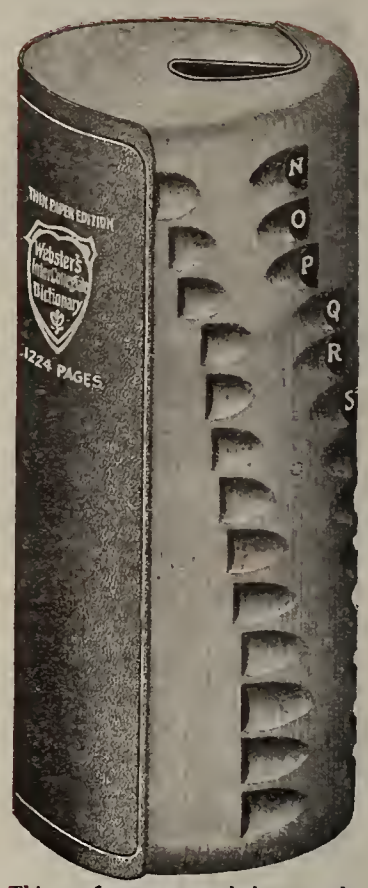

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